

AD-A112 922 FEDERAL AVIATION ADMINISTRATION WASHINGTON DC SYSTEM--ETC F/8 1/5
SRDS TECHNICAL PROGRAM DOCUMENT, FISCAL YEAR 1982 RESEARCH AND --ETC(U)
JAN 82
UNCLASSIFIED DOT/FAA/RO-82/11

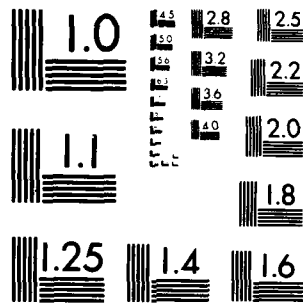
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MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

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DOT FAA RD-82 11

Systems Research &
Development Service
Washington, D.C. 20590

SRDS

Technical Program Document

Fiscal Year 1982

Research & Development Approved Projects

January 1982

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Federal Aviation Administration

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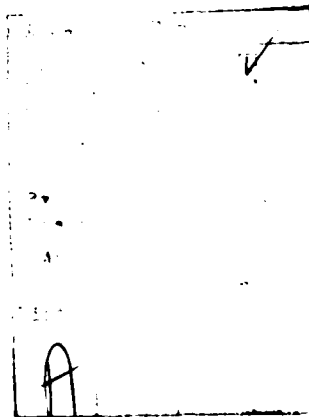
Technical Report Documentation Page

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				14. Sponsoring Agency Code ARD-443															
15. Supplementary Notes																			
<p>16. Abstract</p> <p>This Technical Program Document (TPD) contains Research and Technology sheets which reflect Systems Research and Development Service, Federal Aviation Administration, approved projects which have significant activity occurring in Fiscal Year 1982 and beyond. These sheets contain the requirement, participating organizations, specific objectives, and milestones scheduled for accomplishment. The dates identified are in effect as of the report date (1/22/82) and are subject to change.</p> <p>This TPD is structured according to the following Engineering and Development Programs:</p> <table border="0"> <tr> <td>02 Radar</td> <td>12 En Route Control</td> </tr> <tr> <td>03 Beacon</td> <td>13 Flight Service Station</td> </tr> <tr> <td>04 Navigation</td> <td>14 Terminal/Tower Control</td> </tr> <tr> <td>05 Airborne Separation Assurance</td> <td>15 Weather</td> </tr> <tr> <td>06 Communications</td> <td>21 Support</td> </tr> <tr> <td>07 Approach and Landing Systems</td> <td>23 Advanced Computers</td> </tr> <tr> <td>08 Airport/Airside</td> <td></td> </tr> </table> <p>Type Indicator Milestones are for intra-agency use.</p>						02 Radar	12 En Route Control	03 Beacon	13 Flight Service Station	04 Navigation	14 Terminal/Tower Control	05 Airborne Separation Assurance	15 Weather	06 Communications	21 Support	07 Approach and Landing Systems	23 Advanced Computers	08 Airport/Airside	
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CONTENTS

<u>PROJECT</u>	<u>TITLE</u>
<u>02</u>	<u>RADAR</u>
021-241-030	MTD and Weather Pulse Doppler Detection of Bird Hazards.
021-241-040	Fiber Optics Remoting ASR/ATCBI to Remote Indicator Site
022-242-020	MTD En Route Weather Application
022-242-030	Airport Doppler Radar Low Altitude Wind Shear
022-243-010	Moving Target Detector (MTD)
023-241-010	Limited Surveillance Radar (LSR)
<u>03</u>	<u>BEACON</u>
033-241-010	ATCRBS Improvements (Antenna/Processor)
034-241-010	Discrete Address Beacon System (DABS)
034-242-010	Automatic Traffic Advisory and Resolution Service (ATARS)
034-243-010	Mode S Enhancements
034-243-000	Automatic Traffic Advisory Service (ATAS)
035-243-010	Automatic Traffic Advisory and Resolution Service (ATARS)
<u>04</u>	<u>NAVIGATION</u>
041-305-040	Develop VOR Zero Phase Standard
041-305-050	Wilcox 585B VOR Systems Parameters
041-305-060	Second Generation VOR
042-306-040	U.S. National Std. for the VORTAC System
042-312-010	Precision DME (PDME) Development

<u>PROJECT</u>	<u>TITLE</u>
042-312-020	DME-Based Azimuth System (DAS)
043-311-030	OMEGA Data Bank
043-311-040	Differential OMEGA Evaluation
043-311-050	OMEGA/VLF NOTAM Monitor
045-330-01H	Helicopter IFR Operation Evaluation
045-330-02H	Helicopter Navigation
046-310-010	Navigation Certification Support
046-310-030	Future System Decision Assessments
046-310-040	Advanced Navigation and Landing
047-310-010	Aircraft Tracking and Data System (ATADS)
048-311-010	LORAN-C General Aviation Receiver
048-311-020	LORAN-C System Configuration
048-311-030	LORAN-C Short-Term Stability
048-311-050	LORAN-C Flight Evaluation
048-311-060	LORAN-C Antennas Evaluation
048-312-010	LORAN-C Impact on FAA Operations
048-312-020	LORAN-C Flight Inspection
048-312-030	LORAN-C NOTAM Monitor Development
048-312-040	LORAN-C Signal Simulator
048-312-050	LORAN-C Flight Following (LOFF)
049-311-010	NAVSTAR GPS Flight Evaluation
049-312-010	NAVSTAR GPS Impact on FAA Operations
<u>05</u>	<u>AIRBORNE SEPARATION ASSURANCE</u>
052-243-010	Traffic Alert & Collision Avoidance System (TCAS) I and II Minimum
052-244-010	Traffic Alert and Collision Avoidance System (TCAS) - II



06COMMUNICATIONS

062-222-010 Small Voice Switching and
Control Development

063-221-010 National Airspace Data
Interchange Network (NADIN)
Enhancements

064-221-020 Emergency Locator Transmitter
Improvement

07APPROACH AND LANDING SYSTEMS

071-331-010 ILS Sustaining Engineering

073-320-010 Head-Up Display (HUD)
Simulation and Flight Test

073-330-010 Weather Display for General
Aviation Cockpit

073-342-020 Advanced Head Down Displays
(HDD)

075-325-010 Develop Microwave Landing
System (MLS)

076-311-010 Aircraft Alert Systems
Standardization Studies

076-320-010 MLS Service Test and
Evaluation Program (STEP)

077-330-010 Flight Deck Information
Coordination

077-340-010 Pilot Factors Study

077-340-020 Pilot Factors - Navigation

077-342-030 Flight Deck Information
Management

077-343-010 Flight Phase Status Monitoring

077-343-020 Evolving NAS Impact in the
Cockpit

08AIRPORT/AIRSIDE

081-502-010 Reflective In-Pavement
Markers for Runways

081-502-020 Evaluation of Precision
Approach Path Indicator (PAPI)

081-502-030 Marking and Lighting of
Unpaved Runways

082-520-010 Airport Pavement Materials
and Construction Techniques

082-531-010 Runway Surface Traction

082-520-020 Airport Pavement - Design and
Evaluation

082-520-030 Airport Pavement Performance
and Management

084-351-020 Vortex Advisory System
Departure Applications

084-351-050 Advanced Vortex System
Departure Applications

084-351-060 FAA/NASA/Wake Vortex
Alleviation Program

12EN ROUTE CONTROL

122-109-010 Computer Software Development
Support (ARD-140)

122-110-010 Program Planning and System
Engineering (MITRE)

122-111-010 Surveillance System
Improvements

122-112-010 Conflict Alert Mode C Intruder

122-112-020 Conflict Resolution Advisory

122-112-050 En Route Metering

122-112-080 Advanced En Route Tracker

122-112-090 Offload 9020 Software to ETABS

122-113-010 Electronic Tabular Display
Subsystem (ETABS)

122-113-030 Radar Display

122-113-060 Recording/Playback Subsystem

122-113-070 ETABS Display

122-113-070 Recording/Playback Study

122-113-080 Self-Powered Alphanumeric
Readout (SPARE)

122-114-010 Rectangular En Route Area
Display for Sector Suite
Development

122-114-030 Hardware Measurement and
Analysis

122-114-040 System Performance Evaluation

122-115-010 Controller Performance
Evaluation

DABS Processing in the En
Route System

122-115-040	ETABS Software Interface Development	142-175-020	ARTS-II Enhancements
		142-176-010	ARTS IIIA All Digital System (ADS) Interface with DABS
		142-176-040	Data Link Interface
		143-102-030	ASDE-3 Support to AAF
124-111-010	Human Factor Analysis of Sector Control Suite	<u>15</u>	<u>WEATHER</u>
<u>13</u>	<u>FLIGHT SERVICE STATION</u>	151-410-01W	Systems Engineering Support
131-401-060	Geostationary Operational Environmental Satellite Weather Satellite Product Evaluation	151-412-01W	Develop Data Link Weather Products
131-401-070	FAA Technical Center Voice Recognition System	151-412-02W	Cockpit Weather Display
132-402-010	Flight Service Automation System Acquisition	151-413-01W	Center Weather Service Unit (CSMU) Development
132-402-070	FSAS Modernization and Building Program Support	151-413-03W	Terminal Weather Controller Support
132-402-080	FSAS Specialist/Automation Interfaces	151-413-04W	Center Controller Support
132-402-090	FSAS Model 2 Specialist Console	151-413-06W	Solid State ATIS
132-402-270	FSAS Lab Effort - FSAS Design, Test and Evaluation	152-410-02W	Terminal Area Weather Support
132-402-280	Data Base for FSAS Model 1 and 2 Systems	153-410-01W	AWOS and Wx Sensors
132-403-010	Development, Test and Specification of FSS Direct User Access Capability	153-411-01H	Helicopter Wx Detection Systems
132-410-030	Experimental Automated Route Forecast Evaluation (ARF)		
<u>14</u>	<u>TERMINAL/TOWER CONTROL</u>	154-352-010	Gust Front Early Warning Field Test
142-120-010	Computer Software Development Support (ARD-140)	155-410-01W	NEXRAD JSPO Support
142-121-010	Program Planning and System Engineering	155-410-02W	NEXRAD Requirements Analysis
142-171-050	Full Digital ARTS Display (FDAD) Development	155-410-03W	Engineering Support
142-172-020	Terminal Sequencing and Spacing	156-230-01W	NEXRAD Radar Terminal Area Coverage Studies
142-173-030	Terminal Information Display System (TIDS)	156-230-02W	Weather Radar Technology Development
142-173-040	Consolidated Cab Display (CCD)	156-231-01W	Weather Radar Experimental Facility
		156-410-01W	Weather Radar Sustaining Engineering
		156-410-02W	Weather Radar Meteorological Techniques Development
		156-410-04W	Airborne Doppler Weather Radar Evaluation
			Joint Airport Weather Studies (JAWS)

21SUPPORT

213-460-080 World Administrative Radio
Conference Implementation
213-460-090 Aeronautical Band Studies
213-460-390 Radio Frequency Spectrum
Measurement Techniques
213-461-100 Doppler Weather Radar
Frequency Planning
213-461-110 Radar Frequency and PRF
Assignment Criteria
213-461-160 Mode S/DABS Electromagnetic
Compatibility (EMC) Analysis
213-462-020 LF/MF Assignment Handbook
Revisions
213-462-030 FM/AM/TV Interference to FAA
Comm/Nav. Facilities
213-462-040 Analysis of MLS Channel Plans
with L-Band DME
213-462-070 TCAS/BCAS Electromagnetic
Compatibility (EMC) Analysis
213-462-160 GPS Analysis - EMC
Considerations
213-462-360 VHF/UHF Air/Ground
Communications Frequency
Engineering Handbook, 6050.4B
213-462-370 VHF/UHF Microwave Link
Frequency Engineering
Handbook, 6050.17A Rev.
213-462-390 Power Line Carrier
Interference Investigation
215-408-010 Metrication in the National
Airspace System
215-150-010 FAA/NASA Simulations
218-152-020 Study of Simultaneous Triple
ILS Approaches
218-154-01H FAA/NASA VTOL Support Program
218-154-02H LORAN Flight Following (LOFF)
218-154-03H Reduced ATC Separation for
Helicopters
218-154-04H Develop VFR ATC Concepts for
Helicopters in TCA's
218-154-06H ATC Concepts for Helicopter
Operations to Multiple Oil
Rigs
218--154-08H Helicopter Separation Studies
at High Density Airports
219-151-020 Standard Supervisors
Desk/Console for TRACONS

219-152-010

Evaluation of Color Displays
for ATC

219-454-010

Description/Definition of
Future ATC Systems and
Associated Interfaces.23ADVANCED COMPUTERS

231-131-01C

Computer Development Support
(ARD-140)

231-131-01C

Program Planning and System
Engineering

231-132-01C

FAA Technical Center Support

231-132-02C

Validation and Verification

231-132-03C

System Engineering and

Technical Assistance

231-132-04C

Sector Suite Development

231-133-01C

En route Concepts

231-133-02C

En Route Design

232-130-01C

Computer Development Support

232-132-03C

Terminal System Engineering

232-133-01C

Terminal Consolidation

Concepts

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 001-241-030 2. START DATE: 4/80 3. REVISION NUMBER: 0
 4. TITLE: MTD AND WEATHER PULSE DOPPLER RADAR DETECTION OF BIRD HAZARDS 5. MANAGER: DONALD TURNBULL
 6. ORGANIZATION: AND-731 7. TELEPHONE NUMBER: 202-426-8576
 8. REFERENCE: FAA 9550-1, 10. AAS-300-80-1, DATED 12/19/79
 10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:
 ORGANIZATION NAME: AGREEMENT NUMBER:
 FAA TECH CENTER, ANA-100H TDD-02-106

11. SPECIFIC OBJECTIVES:

TO EVALUATE NEWLY DEVELOPED ATC RADAR SYSTEM TECHNIQUES (MTD AND HAZARDOUS WX PULSE DOPPLER) FOR POSSIBLE USE IN DETECTING AND DIFFERENTIATING BIRD MOVEMENTS FROM OTHER MOVING TARGETS IN AN EFFORT TO QUANTIFY THE DISTRIBUTION AND DENSITY OF BIRD FLOCKS.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURR DATE
"	N	REPORT-FEASIBILITY STUDY OF PIND DET TECH (DRAFT)	4/82
"	N	REPORT-RECOMMENDATIONS OF BIRD DET TECH TO AAS	9/82

RESEARCH AND TECHNOLOGY
TECHNICAL PROGRAM DOCUMENT

EFFORT DATE: 3/09/82

1. REQUEST NUMBER: 021-241-040 2. START DATE: 8/80 3. REVISION NUMBER: 0
4. TITLE: FIBER OPTICS REMOTING-ASR/ATCPI TO REMOTE INDICATOR SITE 5. MANAGER: DONALD TURNBULL
6. ORGANIZATION: AFD-231 7. TELEPHONE NUMBER: 202-426-8576
8. SECURITY: 9550-1 NO. AAI-530-80-3, DATED 4-18-80
10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:
 ORGANIZATION NAME: AGREEMENT NUMBER:
 FAA TECH CENTER ANA-100H TFD-02-106

11. SPECIFIC OBJECTIVES:

TO INVESTIGATE THE APPLICATION AND FEASIBILITY OF FIBER OPTICS TECHNIQUES FOR REMOTING
ADAR/BEACON DATA TO TERMINAL ATC INDICATOR SITES.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURR DATE
	1	N PHASE I-REPORT ON FIBER OPTICS (DRAFT)	7/81

RESEARCH AND TECHNOLOGY
TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/04/82

1. PROJECT NUMBER: 022-242-020
2. START DATE: 6/78
3. REVISION NUMBER: 10
4. TITLE: ENROUTE WEATHER APPLICATION
5. MANAGER: DONALD TURNFULT
6. ORGANIZATION: AFD-231
7. TELEPHONE NUMBER: 702-426-8576
8. EQUIPMENT: PDA-1/PFD-1/ARD-1,2 DIRECTION 6/25/76
10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
FAA TECHNICAL CENTER
UTAF/MIT LINC LAB

AGREEMENT NUMBER:
TII-02-106
TOWAI-679

11. SPECIFIC OBJECTIVES:

SPONS WITH CONTRACTOR AND FAA TECHNICAL CENTER SUPPORT WILL EXAMINE TECHNIQUES TO IMPROVE
DETECTION/CALIBRATION OF HAZARD WEATHER USING ENROUTE ATC RECORDERS. EMP PLACED ON
DETECTION/CALIBRATION OF HAZARD WEATHER OVER GROUND CLUTTER. AT CONCLUSION OF STUDY DECISION WILL
BE MADE WHETHER TO IMPROVE RECOMMENDED TECHNIQUES IN HARDWARE FOR EVALUATION AT FAA TECHNICAL
CENTER.

12. MILESTONES:

TYPE INDICATOR	DESCRIPTION	CURR DATE
B	CONTRACT AWARD (WTD E/R WX APPL)	6/78
MCP	RPT ENROUTE RDR WX DETEC FEASB.	7/81

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/06/82

1. PROJECT NUMBER: 021-242-030 2. START DATE: 7/76 3. REVISION NUMBER: 1
4. TITLE: AIRPORT DOPPLER RADAR LOW-ALTITUDE WIND SHEAR DETECTION 5. MANAGER: DONALD TURNBULL
6. ORGANIZATION: APD-231 7. TELEPHONE NUMBER: 202-426-8576
8. EQUIPMENT: FSD PROG PLN WIND SHEAR FAA-ED-15-2A, SEE ARD-1 LTR DATE 8/31/79
10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 NOAA/WAVE PROF LAB, POLDER, CO, TSK 7
 FAA TECHNICAL CENTER (IROJ 630)

AGREEMENT NUMBER:
 FA76WAI-622
 TID-02-106

11. SPECIFIC OBJECTIVES:

TO DETERMINE THE FEASIBILITY OF USING AN AIRPORT PULSE DOPPLER RADAR TO IDENTIFY WIND SHEAR HAZARDS
 ALONG AIRPORT RUNWAY APPROACH AND DEPARTURE PATHS TO PROVIDE WARNING OF DANGEROUS WINDS.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURR DATE
MC S *		RPT ON WPL SIM STDS PHASE I	2/78
MC S N		LTR RPT WA-78-59-LR WS TESTING	12/78
MC S N		RPT PH II ANT SCAN STRATEGIES (WPL)	12/79
MC S N		REPORT (ADVANCE REVIEW COPY)	5/81

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/09/82

1. PROJECT NUMBER: 022-243-010 2. START DATE: 0/00 3. REVISION NUMBER: 12
 4. TITLE: MOVING TARGET DETECTOR (MTD) 5. MANAGER: DONALD TURNBULL
 6. ORGANIZATION: JPR-231 7. TELEPHONE NUMBER: 202-626-8576
 9. ACQUISITION: PROGRAM PLAN FAA-ED-02-1 AAF LETTER 7-76
 10. FA-TITULATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 FAA TECHNICAL CENTER, ACT-100H
 USAF
 N.E. ECG AND EASTERN REGION

AGREEMENT NUMBER:
 TFD-02-106
 TCMAI-679

11. SPECIFIC OBJECTIVES:

SEPS WITH CONTRACTOR AND FAA TECHNICAL CENTER SUPPORT WILL PROVIDE FOR THE DEVELOPMENT AND EVALUATION OF ADVANCED RADAR SIGNAL PROCESSOR THAT WILL PROVIDE GREATLY IMPROVED DETECTION OF AIRCRAFT IN THE PRESENCE OF GROUND AND PRECIPITATION CLUTTER AND ALSO PROVIDE GREATLY IMPROVED RADAR TRACKING CAPABILITY FOR AUTOMATED SYSTEMS.

12. MILESTONES:

TYPE INDICATOR	DESCRIPTION	CURR DATE
MCP	EN ROUTE MTD II CONTRACT AWARD	8/76
1	TERM MTD-II CONTRACT AWARD	9/76
MCP	MTD II TDP OR ASR-9 COMPLETE	4/79
MCP	MTD II TDP ASR-7/8 TO AAF	3/80
MCP	MTD II TDP EN ROUTE RADARS TO AAF	3/80
MCP	MTD FINAL REPORT	5/81

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/62

1. PROJECT NUMBER: C23-241-010 2. START DATE: 7/65 3. DIVISION NUMBER: 0
 4. TITLE: LIMITED SURVEILLANCE: FAAR (TSE) 5. MANAGER: DONALD TURNBULL
 6. ALLOCATION: AFD-231 7. TELEPHONE NUMBER: 202-426-6546
 8. PERFORMANCE: ATF-1 LTR 2/2/76 AND 6/19/78; ATF-4 LTR 10/20/78
 10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 FAA TECH CTR, ACT-100H

AGREEMENT NUMBER:
 TDC 02-106

11. SPECIFIC OBJECTIVES:

DEVELOP, FABRICATE, AND TEST A LOW COST INTEGRATED SURVEILLANCE SYSTEM FOR HIGH TRAFFIC DENSITY VFR AIRPORTS. THE SYSTEM WOULD BE FAR LESS COMPLEX THAN STANDARD ASR/TABS TERMINAL SYSTEMS.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CUSE	DATE
M	Z	ENGINEERING MODEL CONTRACT		7/65
M	Z	ENGINEERING MODEL DELIVERED TO FAATC		12/67
M	Z	TEF AND OPERATIONAL FIELD EVALUATION		12/68
M	Z	LSR TECHNICAL DATA PACKAGE		4/69

RESEARCH AND TECHNOLOGY
TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

033-241-010

2. START DATE: 7/76

3. REVISION NUMBER: 9

LETTERHITS (ANTENNA/PROCESSOR)

5. MANAGER: DONALD JENKINS

0-032

7. TELEPHONE NUMBER: 202-426-8340

0.1, AAF-76-04 EED PROC PLAN (PROPOSED) FAA-ED-03-02

GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ICN NAME:
VICAL CENTER (C. HAZELWOOD)

AGREEMENT NUMBER:
TFC 03-173

YES:

DEVELOP IMPROVED ATCRBS ANTENNAS & BEACON SIGNAL PROCESSORS IN SUPPORT OF THE AGENCY
MENT PROGRAM. THE RESULTING SPECIFICATIONS ARE USED BY THE OPERATING SERVICES TO
OVERMENTS IN THE OPERATIONAL TERMINAL/ENROUTE FACILITIES.

DESCRIPTION

TDF HANDOFF, LIGHTWEIGHT APP

CURR
DATE
4/81

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/09/82

DOC NUMBER: 234-241-010 1. START DATE: 1/72 3. REVISION NUMBER: 7
 TITLE: ADDRESS ERROR SYSTEM (DABS) 5. MANAGER: DONALD JENYIN
 AVALIATION: 740-232 7. PROJECT NUMBER: 202-426-8340
 ELEMENT: FAA PROGRAM PLAN IAA-ED-04-1
 PARTICIPATING GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:	AGREEMENT NUMBER:
LL (USAF)	72WAI-261
FAA TECHNICAL CENTER (F. GUISHARD)	TFT C3-110
ECAC (DOD)	77WAI-778

PRINCIPAL OBJECTIVE:

TO PROVIDE IMPROVED SURVEILLANCE AND DATA LINK COMMUNICATIONS TO SUPPORT THE ATC AUTOMATION SYSTEMS
 INCLUDING COLLISION AVOIDANCE FOR THE PROJECTED 1980'S AND 1990'S TRAFFIC ENVIRONMENTS. THE
 SELECTED DESIGN IS TO PERMIT AN EVOLUTIONARY INTRODUCTION OF DABS AND IS COMPATIBLE WITH THE
 EXISTING ATCRBS.

ESTIMATES:

TYPE	INDICATOR	DESCRIPTION	CURR DATE
VC	S	DABS SINGLE/MULTI SENSOR TDP	4/80
VC	N	DABS MULTI-SITE T&E INITIATED	9/80
M		MODE 4 FLIGHT TESTS	10/80
M		DABS FINAL NATIONAL STANDARD TO AOA-1	12/80
M		FINAL DABS NATIONAL STANDARD APPROVED	12/80
VC	N	CORP DABS/ATMS (DOD) EMC TESTS	12/80
M	N	DABS/MODE 4 REPORT	7/81

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/04/82

1. PROJECT NUMBER: 034-242-010 2. START DATE: 1/72 3. DIVISION NUMBER: 6
 4. TITLE: AUTOMATIC TRAFFIC ADVISORY & RESOLUTION SERVICE (ATARS) 5. MANAGER: JOHN SCARDINA
 6. CLASSIFICATION: RPD-241 7. TELEPHONE NUMBER: 202-755-4995
 9. REQUIREMENT: UPGRADED 3RD SEPARATION ASSURANCE REQUIREMENT
 10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 FAA TECHNICAL CENTER, ACT-100A.2
 FAA TECHNICAL CENTER, ACT-220

AGREEMENT NUMBER:
 TPD 03-110
 TPD 05-298

11. SPECIFIC OBJECTIVES:

TO DEVELOP AND EVALUATE THE AUTOMATIC TRAFFIC ADVISORY AND RESOLUTION SERVICE - A GROUND-BASED COLLISION AVOIDANCE SYSTEM DESIGNED TO IMPROVE THE SAFETY OF CIVIL AVIATION BY REDUCING THE PROBABILITY OF MIDAIR COLLISIONS FOR BOTH CONTROLLED AND UNCONTROLLED AIRCRAFT.

12. MILESTONES:

TYPE INDICATOR	DESCRIPTION	DATE
MC	ATARS INPUT TO DABS TDP - CPFS FOR COMPTATARS W/CIR	4/80
P	PUBLISH DRAFT NATIONAL STANDARD IN FED REGISTER	3/81
MC	PUBLISH CPFS FOR COMPLETE ATARS (WITH RAR)	6/81
P	INTERIM ATARS HDWR CAP DATA RPT	12/81
P	PHIL SITE ADAPTATION & ALARM RATE ANAL RPT (DRAFT)	1/82
N	SUBJECTIVE FLIGHT TEST REPORT (DRAFT)	2/82
N	WASH SITE ADAPTATION & ALARM RATE ANAL RPT (DRAFT)	2/82
N	COMPL ATARS (W/CIR BY-PASSED) CLOSEOUT DOC PACKAGE	6/82

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. SUBJECT NUMBER: 034-243-C10
 2. START DATE: 10/81
 3. REVISION NUMBER: C
 4. TITLE: MODE S ENHANCEMENTS
 5. MANAGER: DONALD A. JENKINS
 6. ORGANIZATION: ARD-232
 7. TELEPHONE NUMBER: 202-426-8340
 8. REQUIREMENT: EED PROGRAM PLAN FAA-ED-03-1
 10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 FAA TECH CENTER ACT-100H, ACT-100A
 LL (USAF)
 ECAC (DOD)

AGREEMENT NUMBER:
 TTD 03-173, 03-110
 72 WAI-261
 77 WAI-778

11. SPECIFIC OBJECTIVES:

TO DEVELOP MODE S SYSTEM ENHANCEMENTS TO UPGRADE THE PRODUCTION UNITS FOR USE IN ENVIRONMENTS OF INCREASED DENSITY, INCREASED OPERATIONAL CAPABILITY REQUIREMENTS, AND ALTERED INTERFACES WITH FUTURE ATC SYSTEMS EQUIPMENTS.

12. MILESTONES:

TYPE	DESCRIPTION	CURR
INDICATOR		DATE
MC	AMPLITUDE/PHASE MONOPULSE COMPARISON TEST REPORT	4/82
M	OPERATIONAL RTTA DEMONSTRATION	5/82
MC	MODE S/ARTS III HDWR INTERFACE ESTABLISHED	7/82
MC	MODE S/ARTS III INTERFACE SOFTWARE COMPLETED	11/82
M	MODE S DATA LINK RELIABILITY FINAL REPORT	6/83
M	MODE S ARTS III INTERFACE TEST REPORT	6/83

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 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 034-244-000 2. START DATE: 10/81 3. REVISION NUMBER: 0
 4. TITLE: AUTOMATIC TRAFFIC ADVISORY SERVICE (ATAS) 5. MANAGER: JOHN SCARDINA
 6. ORGANIZATION: AND-241 7. TELEPHONE NUMBER: 202-755-4995
 9. STUDY AREA: UPGRADED AND SEPARATION ASSURANCE REQUIREMENTS
 10. PARTICIPATING DOD/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 FAA TECHNICAL CENTER, ACT-100A.2
 FAA TECHNICAL CENTER, ACT-220

AGREEMENT NUMBER:
 TTI-03-110
 TFD-05-298

11. SPECIFIC OBJECTIVES:

DEVELOP AN AUTOMATIC TRAFFIC ADVISORY SERVICE AS A MODE S DATA LINK APPLICATION FOR DEPLOYMENT WITH THE INITIAL MODE S SENSORS.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURR DATE
NC		PUBLISH ATAS CFFS	4/82
N		PUBL DRAFT NAT AVIA STD IN FED REG (PR 82-5225)	5/82
N		INTEGRATE ATAS CODE INTO MODE S ER	12/82
N		PROVIDE TRAFFIC ADV SUBJ EVALUATION REPORT (DRAFT)	1/83
N		PUBL PROPOSED FINAL NAT AVIA STD IN FED REGISTER	8/83
P		PROVIDE ATAS HARDWARE CAPACITY REPORT (DRAFT)	8/83
P		PROV ATAS SITE ADAPTATION PROCEDURES RPT (DRAFT)	9/83
N		PROVIDE ATAS ENGINEERING EVALUATION REPORT (DRAFT)	4/84
NC		PUBLISH FINAL NAT AVIA STD IN FEDERAL REGISTER	4/84
N		PROVIDE ATAS OPERATIONAL EVALUATION REPORT (DRAFT)	7/84

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 041-305-010 2. START DATE: 4/81 3. REVISION NUMBER: 0
 4. TITLE: DVOR SOLID-STATE DISTRIBUTOR 5. MANAGER: FRANK BARRETT
 6. ORGANIZATION: AFD-310 7. TELEPHONE NUMBER: 202-426-8596
 8. ASSIGNMENT: 9550 AAF

10. PARTICIPATING GOVT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 FAA TECHNICAL CENTRE

AGREEMENT NUMBER:
 TID 04-309

11. SPECIFIC OBJECTIVES:

THIS PROJECT IS TO EVALUATE THE DOPPLER VERY HIGH FREQUENCY OMNIDIRECTIONAL RADIO RANGE (DVOR) DISTRIBUTOR BEING DEVELOPED BY EDC-AIRE CORPORATION UNDER CONTRACT WITH AAF. THIS EVALUATION WILL BE IN TWO PARTS: 1- EVALUATION OF THE PROTOTYPE MODEL AND 2- EVALUATION OF THE FIRST ARTICLE.

12. MILESTONES:

TYPE INDICATOR	DESCRIPTION	CURR DATE
M P N	DRAFT FINAL REPORT (1ST ARTICLE DVOR DISTRIBUTOR)	10/82

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/06/82

1. PROJECT NUMBER: 041-305-020 2. START DATE: 6/76 3. REVISION NUMBER: 4
 4. TITLE: VOR SITING CRITERIA UPDATE 5. MANAGER: FRANK BASSETT
 6. ORGANIZATION: AFD-310 7. TELEPHONE NUMBER: 202-426-8596

9. ACQUIREMENT: FAA-ED-04-01 AND AAF LETTER REQUEST

10. PARTICIPATING GOVT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 FAA TECHNICAL CENTER
 RADC (USAF)

AGREEMENT NUMBER:
 NPD-04-300

11. SPECIFIC OBJECTIVES:

NEW DEVELOPMENTS SUCH AS DOUBLE SIDEBAND DOPPLER VOR, STACKED ARRAYS, AND PROPAGATION MODELING WILL BE INCORPORATED INTO THE VOR SITING CRITERIA HANDBOOK. THE WORK WILL BE DONE BY INTERAGENCY AGREEMENT WITH RADC (USAF) TO SYRACUSE UNIVERSITY POST-DOCTORAL PROGRAM UTILIZING THE OUTPUT FROM PROJECT 041-305-030 AND OTHER FAA DATA/REPORTS.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CUSER	DATE
MCPS		COMPLETE VOR SITING CRITERIA UPDATE		6/83
IP		DELIVER VOR SITING CRITERIA UPDATE TO AAF		8/83

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 041-305-030 2. START DATE: 6/73 3. REVISION NUMBER: 3
 4. TITLE: VOR PROPAGATION MODELING 5. MANAGER: FRANK BASSETT
 6. ORGANIZATION: ASD-310 7. TELEPHONE NUMBER: 202-426-8596
 9. EQUIPMENT: ED PROGRAM PLAN ED-04-01

10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 FAA TECHNICAL CENTER
 WDC (USAF)

AGREEMENT NUMBER:
 04-309

11. SPECIFIC OBJECTIVES:

DEVELOP COMPUTER PROGRAMS WHICH WILL ASSESS SPECIFIC EFFECTS OF VARIOUS TYPES OF REFLECTORS AROUND A VOR OR DOPPLER VOR. THESE PROGRAMS WILL THEN BE DELIVERED TO AAF, AND USED IN THE VOR SITING CRITERIA UPDATE (PROJECT 041-305-020). SYRACUSE UNIVERSITY WILL DEVELOP THE PROGRAMS AND FAATC WILL COLLECT DATA FOR USE BY S.U. IN THE VALIDATION OF THE COMPUTER PREDICTIONS.

12. MILESTONES:

TYPE INDICATOR	DESCRIPTION	CURN DATE
	VOR PROPAGATION COMPUTER PROGRAMS TO AAF	1/83
	DRAFT FINAL REPORT: VOR PROPAGATION MODELING	1/83

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 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

PROJECT DATE: 3/08/82

1. PROJECT NUMBER: C41-305-040 2. START DATE: 8/73 3. REVISION NUMBER: 3
 4. TITLE: DEVELOP VOR ZERO PHASE STANDARD 5. DATA: FRANK BASSETT
 6. CO-LOCATION: RND-310 7. TELEPHONE NUMBER: 202-406 8596
 9. REQUIREMENT: 9550 AF-700-74-1

10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:
 ORGANIZATION NAME: AGREEMENT NUMBER:
 NBS

11. TECHNICAL OBJECTIVES:
 A VOR ZERO PHASE STANDARD IS BEING DEVELOPED BY NBS AND FUNDED BY DOD AND FAA. THE STANDARD
 CONSISTS OF TWO PARTS: AUDIO AND RF STANDARDS.

12. MILESTONES:

TYPE	DESCRIPTION	CUPR
INDICATOR		DATE
M	ADVISE APO OF VOR AUDIO STANDARD	9/81
M	ADVISE AVS OF VOR RF STANDARD	10/82

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 041-305-050
 2. START DATE: 1/78
 3. REVISION NUMBER: 2
 4. TITLE: WILCOX 585B VOR SYSTEMS PARAMETERS
 5. MANAGER: FRANK MARSHALL
 6. ORGANIZATION: FPO-310
 7. TELEPHONE NUMBER: 202-426-8596
 8. REFERENCE: 2150: AAF-410-78-03

10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 FAA TECHNICAL CENTER

AGREEMENT NUMBER:
 TPL-04-305

11. SPECIFIC OBJECTIVES:

TECHNICAL CENTER WILL CONDUCT TESTS TO DETERMINE MAGNITUDE OF THE GROUND CHECK ERROR DUE TO EACH OF THE FOLLOWING FACTORS: A) SLOT ANT; B) THE COUNTERPOISE; C) GONIOMETER; AND D) VOR TRANSMITTER SYSTEM.

12. MILESTONES:

INDICATOR	TYPE	DESCRIPTION	CURR DATE
20	N	DRAFT FINAL REPORT (WILCOX 585B)	3/81

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. SEQUENT NUMBER: 041-305-060
 2. START DATE: 2/74
 3. REVISION NUMBER: 4
 4. TITLE: SECOND GENERATION VOR
 5. MANAGER: FRANK BASSETT
 6. ORGANIZATION: APD-310
 7. TELEPHONE NUMBER: 202-426-8596
 8. SPECIAL TEST: JOINT DIRECT.FE ASSOC ADMIN & EED PROGRAM PLAN EI-04-01
 9. PARTICIPATING GOVT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 FAA TECHNICAL CENTER

AGREEMENT NUMBER:
 APD-04-309

11. SPECIFIC OBJECTIVES:

CONTRACTOR DEVELOPMENT OF AN FAA TECHNICAL CENTER TEST BED FOR A REMOTE MAINTENANCE MONITOR SYSTEM (RMMS). THIS SYSTEM WILL BE EXERCISED AT THE FAA TECHNICAL CENTER TO DERIVE DATA FOR PREPARATION OF PRODUCTION SPECIFICATION. SENSORS WILL BE INSTALLED IN A COMMERCIAL, SOLID STATE VOR TO PERMIT INVESTIGATION OF AUTOMATIC FAULT DIAGNOSIS AND TREND ANALYSIS.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURR
MC	W	DRAFT FINAL REPORT: SECOND GENERATION VOR	DATE 4/82

RESEARCH AND TECHNOLOGY
TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 042-306-040 2. START DATE: 7/76 3. REVISION NUMBER: 5
4. TITLE: U.S. NATIONAL AVIATION STANDARD FOR THE VORTAC SYSTEM 5. MANAGER: FRANK BASSETT
6. ORGANIZATION: ARD-310 7. TELEPHONE NUMBER: 202-426-8596
9. REQUIREMENT: ARD-1 LETTER DATED JULY 8, 1976
10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
FAA TECHNICAL CENTER
DOD

AGREEMENT NUMBER:

11. SPECIFIC OBJECTIVES:

UPDATE VORTAC NATIONAL STANDARD CONSISTENT WITH PRESENT OPERATIONAL CHARACTERISTICS OF THE SYSTEM .

12. MILESTONES:

TYPE		CURR
INDICATOR	DESCRIPTION	DATE
NC	ISS ADVIS CIR AND ORDER FOR VORTAC NAT. STAND.	2/82

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 040-312-010
 2. START DATE: 10/78
 3. REVISION NUMBER: 0
 4. TITLE: "PRECISION IPF (PDME) DEVELOPMENT"
 5. MANAGER: FRANK BASSETT
 6. ORGANIZATION: AID-310
 7. TELEPHONE NUMBER: 202-426-4596
 8. PERFORMANCE: NAT'L PLAN FOR DEV. OF WLS & NAT'L PLAN JUN 78 UPDATE
 9. PARTICIPATING GOVT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 FAA TECHNICAL CENTER
 FLECMAC.COMBAT.ANAL.CENTER (ECAC)

AGREEMENT NUMBER:

11. SPECIFIC OBJECTIVES:

DEVELOP STANDARDS AND PERFORMANCE SPECIFICATION FOR AN L-BAND PDME FOR CTOL WLS APPLICATIONS (SERVICE LEVEL A) AND FOR STOL/VTOL AND FUTURE CTOL WLS APPLICATIONS (SERVICE LEVEL B) WHILE MAINTAINING COMPATIBILITY AND INTEROPERABILITY WITH EXISTING ICAO ANNEX 10 STANDARDS.

12. MILESTONES:

TYPE INDICATOR	DESCRIPTION	CURR DATE
"C"	PDME PERFORMANCE SPEC. TO AAF	1/82

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROCEED DOCUMENT

REPORT DATE: 3/06/82

1. PROJECT NUMBER: 040-312-020 2. START DATE: 6/79 3. REVISION NUMBER: 1
 4. TITLE: 360-DEGREE AZIMUTH SYSTEM (IAS) 5. MANAGER: FRANK BAGGETT
 6. ORGANIZATION: AFOS-310 7. TELEPHONE NUMBER: 202-426-4596
 8. COUNTRY: FEDERAL REPUBLIC OF GERMANY (FRG) AND FAA
 9. PARTICIPATING DOD/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME: FEDERAL REPUBLIC OF GERMANY AGREEMENT NUMBER:
 FEDERAL TECHNICAL CENTER MOU

11. SPECIFIC OBJECTIVES:

UNDER AN MOU WITH THE FRG, OPERATIONAL/FUNCTIONAL REQUIREMENTS FOR 360-DEGREES SERVICE IN THE TMA WILL BE JOINTLY DEVELOPED AND THE DAS BEING DEVELOPED BY STANDARD ELECTRIK LORENZ (SEL-ITT) WILL BE COMPARED ALONG WITH OTHER CANDIDATE SYSTEMS (TPSP, MLS 360 DEGREE FUNCTION, LOGAN-C, NAVSTAR GPS, (GCR/DFP) AGAINST THESE REQUIREMENTS.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CDR	DATE
D		DRAFT RPT: DEFINITION OF DDF-P MULTIPATH THREAT		7/81
D		DRAFT RPT: MLS MULTIPATH MODELING USERS MANUAL		8/81
D		DRAFT RPT: 360-DEGREES SERVICE OP.& FUNC. REQTS		10/81

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

43-311-030

2. START DATE: 11/76

3. REVISION NUMBER: 0

BANK

5. MANAGER: GEORGE QUINN

-110

7. TELEPHONE NUMBER: 202-426-8596

EST FROM FLIGHT STANDARDS SERVICE (11/76)

GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ON NAME:

AGREEMENT NUMBER:

IES:

1. AIS CARRIER AIRCRAFT EQUIPPED WITH OMEGA RECEIVERS TO PERMIT AN ANALYSIS OF OMEGA
 FLIGHT IN MAJOR INTERNATIONAL ROUTE STRUCTURES.

DESCRIPTION

REPORT: OMEGA DATA BANK INITIAL REPORT
 REPORT: OMEGA DATA BANK INTERIM REPORT
 REPORT: OMEGA DATA BANK FINAL REPORT

CURR

DATE

9/80
 12/81
 11/82

RESEARCH AND TECHNOLOGY
TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/06/82

PROJECT NUMBER: 043-311-047 2. START DATE: 10/77 3. DIVISION NUMBER: C
TITLE: DIFFERENTIAL OMEGA EVALUATION 5. MANAGER: GEORGE QUINN
INDUSTRY: 811-210 7. TELEPHONE NUMBER: 202-426-8596
PROJECT: FEDERAL RADIO-NAVIGATION PLAN (7/60)

PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES):

ORGANIZATION NAME:
TRANSPORT CANADA
177 ALASKAN REGION (7/79)

AGREEMENT NUMBER:
MAY 7, 1979
AFD/RAL-79-226

PROJECT OBJECTIVES:

EVALUATE THE SUITABILITY OF DIFFERENTIAL OMEGA AS AN AIR NAVIGATION AID IN ALASKA AND THE NORTHWEST
SECTION OF CANADA. THREE GROUND STATIONS TO TRANSMIT OMEGA CORRECTIONS AND SEVERAL AIRBORNE UNITS
WILL BE INCLUDED IN THE EVALUATION AT VARIOUS TIMES.

LESSONS:

DATE	DESCRIPTION	CURR DATE
10/77	DRAFT REPORT: OMEGA/DIFF. OMEGA ASSESS--ALASKA	3/81
7/79	FINAL REPORT: OMEGA/DIFF. OMEGA ASSESS - ALASKA	7/81
7/81	REPORT: NOISE CANCELLATION ANTENNA EVALUATION	7/81

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 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 043-311-050 2. START DATE: 5/77 3. REVISION NUMBER: 0
 4. TITLE: OMEGA/VLF SIGNAL MONITOR 5. MANAGER: GEORGE QUINN
 6. ORGANIZATION: APT-310 7. TELEPHONE NUMBER: 202-426-8596

8. REFERENCE: REQUEST FROM FLIGHT STANDARDS SERVICE (11/76)

10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 NAVAL OCEAN SYSTEMS CENTER

AGREEMENT NUMBER:
 DOT-FA77WAI-735

11. CARRIER OBJECTIVES:

DESIGN: AN OMEGA AND VLF SIGNAL MONITOR THAT WILL PROVIDE OPERATIONALLY MEANINGFUL ADVISORIES TO
 PILOTS FOR FLIGHT PLANNING, AND TO APPROPRIATE AIR TRAFFIC PERSONNEL CONCERNING USEABILITY OF
 SIGNAL, IN GEOGRAPHIC AREAS AND ON ROUTE STRUCTURES OF CONCERN.

12. MILESTONES:

<u>TYPE</u> <u>INDICATOR</u>	<u>DESCRIPTION</u>	<u>CURR</u> <u>DATE</u>
2	COMPLETE MODIFICATIONS/OMEGA/VLF SIGNAL MONITOR	8/81

 F - S E A R C H A N D T E C H N O L O G Y
 T E C H N I C A L P R O G R A M D O C U M E N T

REPORT DATE: 3/08/62

1. PROJECT NUMBER: 045-230-01 2. START DATE: 6/78 3. REVISION NUMBER: 7
 4. TITLE: HELICOPTER IFF OPERATIONAL EVALUATION 5. MANAGER: GLEN ADAMS
 6. ORGANIZATION: AFD-320 7. TELEPHONE NUMBER: 202-426-3400
 8. DEPARTMENT: HELICOPTER OPTIC DEVELOP PLAN, PFA-RT-04-2
 9. COORDINATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:	AGREEMENT NUMBER:
PFA TECHNICAL CENTER	TEL 04-150
AERONAUTICAL CENTER (AFO-500)	
TIC RES 1A 0-A (0/60)	PFA FA101

11. SPECIFIC OBJECTIVES:

DEVELOP IMPROVED SYSTEMS AND PROCEDURES FOR IFF OPERATIONS OF HELICOPTERS; PROVIDE DATA FOR
 DEVELOP TO ESTABLISH CRITERIA FOR USING LORAN-C, GPS FOR NAVIGATION AND TRAFFIC CONTROL OF
 HELICOPTERS; DEVELOP CRITERIA FOR HELICOPTER TERMINAL APPROACH PROCEDURES USING MLS, AIRBORNE
 RADAR, AND CONVENTIONAL AIDS.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	COMPL DATE
M	2	NAVSTAR/HELICOPTER EVALUATION	
NC	1	INC LOW AIRSPEED OPERATIONAL EVALUATION	
M	1	EADI CERT CRITERIA	
M	2	ADVANCED HELICOPTER COCKPIT EVALUATION	
M	4	EVALUATE ADVANCED PROCEDURES W/ADVANCED INSTR/AIDS	
P		FLT EVAL EADI	
	2	RECOMMEND CHANGES TO HELICOPTER TERPS	
		FLIGHT DATA INSTRUMENTS/AIDS FOR ADVANCED TERPS	
		ELECTRONIC FLIGHT INSTRUMENTED COCKPIT	
		LORAN-C DATA ON APPROVAL CRITERIA, RPT	6/80
NC	N	NORTHEAST CORRIDOR OPERATIONAL EVALUATION	9/80
	N	CONFIGURE S-76 FOR FLIGHT TESTS	12/81
	N	LORAN-C NONPRECISION APPROACH (NE CORRIDOR)	12/81
	N	HELIPORT LIGHTING TEST COMPLETE	2/82
	N	LORAN-C NONPRECISION APPROACH (GULF OF MEXICO)	2/82
	N	MLS HELICOPTER EVALUATION	3/82
	N	MLS HELIPORT REPORT	4/82
		RECOMMEND CHANGES TO TERPS FOR HELICOPTER	6/82
	N	COMPLETE MLS HELIPORT TESTS	7/82
	N	LORAN-C NONPRECISION APPROACH (APPALACHIA)	8/82
	N	RNAV/MLS HELICOPTER EVALUATION	9/82
	2	LORAN-C SUITABILITY FOR HELICOPTER	9/82
	N	RNAV/RADAR REMOTE AREA APPROACHES	4/83

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

RECEIPT DATE: 7/08/82

1. PROJECT NUMBER: C45-330-024 2. START DATE: 6/78 3. DIVISION NUMBER: 0
 4. TITLE: HELICOPTER NAVIGATION 5. MANAGER: NORMAN FUJISAKI
 6. ORGANIZATION: ARD 330 7. TELEPHONE NUMBER: 202-406-8506
 9. EQUIPMENT: HELICOPTER GPS DEVELOPMENT PLAN, FA-ED-04-02
 10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 FAA TECH CENTER (ACT-100)
 USCG (G-N&N)

AGREEMENT NUMBER:
 TEL 04-150
 MIFR 270099-1-02303

11. SPECIFIC OBJECTIVES:

TO PROVIDE FOR LOW ALTITUDE, REMOTE AREA, ETC. HELICOPTER NAVIGATION NEEDS THROUGH DEVELOPMENT OF NEW/IMPROVED CAPABILITIES; SUPPORT OF CERTIFICATION OF EQUIPMENT, SYSTEMS, AND PROCEDURES ETC.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURR DATE
M P	N	HELO GPS RECEIVER EVAL COMP	
M	Z	LOFF PHASE II COMPLETE	
P	N	EVAL HELICOPTER DIFFERENTIAL GPS	
M	N	START TESTING OF GPS IN HELICOPTERS	3/81
M	N	ENROUTE LORAN-C REPORTS	4/81
M	N	EVALUATE DOPPLER NAVIGATOR	6/82
AC	NT	LOFF EVAL AND ANALYSIS COMP(HELO IFR OPS)	7/82

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: (46-310-010) 2. START DATE: 8/79 3. REVISION NUMBER: 1
 4. TITLE: NAVIGATION CERTIFICATION SUPPORT 5. MANAGER: FRANK BASSETT
 6. ORGANIZATION: AND-510 7. TELEPHONE NUMBER: 202-426-6596
 9. REQUIREMENT: FAA ED-04-01

10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 FAA TECHNICAL CENTER

AGREEMENT NUMBER:

11. SPECIFIC OBJECTIVES:

TO DEVELOP STANDARDS AND PROCEDURES THAT WILL ASSURE THE SAFE USE OF EMERGING NAVIGATION AIDS (E.G. LORAN-C, OMEGA/VLF, NAVSTAR GPS) THROUGH ALL PHASES OF FLIGHT, AND TO DETERMINE THE ACCEPTABILITY OF SEVERAL NAVIGATION AIDS SERVING COMMON AIRSPACE.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CWER	DATE
		ERROR BUDGETS FLIGHT TEST PLAN		5/81
		FAST TIME NAV MIX SIMULATION REVIEW		7/81
		ERROR BUDGETS DATA ACQUISITION HARDWARE CHECKOUT		11/81
		PRELIMINARY ERROR BUDGET DATA BASE SUMMARY REPORT		12/81
		FAST-TIME NAV MIX SIMULATION MODEL		4/82
	N	RPT: RNAV COST VS PILOT WORKLOAD ASSESSMENT		9/82
		DRAFT REPORT: VOR/DME, VOR/DME(RNAV) PILOT ERROR		9/82
		DATA: LORAN-C FTE TESTS COMPLETE		12/82
	MCP	RPT: NAV MIX ANALYSIS		9/83
		INTERIM ERROR BUDGET REPORT		9/83
		DRAFT REPORT: LORAN-C SIGNAL SIMULATOR EVALUATION		12/83
	MCP	FINAL NAVIGATION SYSTEMS ERROR BUDGETS		1/87

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/06/82

1. PROJECT NUMBER: 046-310-037 2. START DATE: 10/81 3. REVISION NUMBER: 0
 4. TITLE: FUTURE SYSTEM DECISION ASSESSMENTS 5. MANAGER: GENE JENSEN
 6. ORGANIZATION: ARD-310 7. TELEPHONE NUMBER: 202-426-8596
 9. REQUIREMENT: INPUT TO FAA 1982 NAVIGATION RECOMMENDATION; FRP (7/80)
 10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:

AGREEMENT NUMBER:

11. SPECIFIC OBJECTIVES:

COLLECT/ORGANIZE RESULTS OF ARD-310 CONTRIBUTIONS TO FAA FUTURE RADIONAVIGATION SYSTEM DECISION DATA BASE.

12. MILESTONES:

TYPE INDICATOR	DESCRIPTION	CURR DATE
M	LORAN-C CAPABILITIES REPORT, OUTLINE	8/81
M	VOR/DME REDUNDANCY STUDY, REPORT	12/81
MC	REPORT: VOR/DME CAPABILITIES	8/82
MC	REPORT: LORAN-C CAPABILITIES	8/82
MC S	NAVSTAR GPS AS CANDIDATE FOR THE POST-1995 SYSTEM	12/82
MC S	REPORT: LORAN-C AS CANDIDATE FOR POST-1995 SYSTEM	12/82

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

RECEIPT DATE: 3/08/82

1. PROJECT NUMBER: 046-310-040
 2. START DATE: 8/79
 3. REVISION NUMBER: 2
 4. TITLE: ADVANCED NAVIGATION AND LANDING
 5. MANAGER: FRANK BASSETT
 6. ORGANIZATION: APD-310
 7. TELEPHONE NUMBER: 202-426-8596
 9. REQUIREMENT: FAA-ED-04-01; NATIONAL PLAN FOR DEVELOPMENT OF MLS
 10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:
 ORGANIZATION NAME: AGREEMENT NUMBER:
 FAA TECHNICAL CENTER

11. SPECIFIC OBJECTIVES:

SUPPORT REAL-TIME ATC SIMULATIONS AND OTHER NEAR TERM IMPLEMENTATION PROGRAMS FOR MLS. SUPPORT DEVELOPMENT OF MLS ATC OPERATIONAL PROCEDURES AND SUBSEQUENT MLS AVIONICS STANDARDS.

12. MILESTONES:

TYPE INDICATOR	DESCRIPTION	CURR DATE
N	PROJ PLAN: CONTROL OF MLS A/C IN TERMINAL AREAS	2/82
N	FINAL RPT: CONTROL OF MLS A/C IN TERMINAL AREAS	11/82

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 047-310-010 2. START DATE: 9/78 3. REVISION NUMBER: C
 4. TITLE: AIRCRAFT TRACKING AND DATA SYSTEM (ATADS) 5. MANAGER: FRANK BASSETT
 6. ORGANIZATION: ART-310 7. TELEPHONE NUMBER: 202-426-8596
 9. REQUIREMENT: FAA-FD-04-01
 10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 FAA TECHNICAL CENTER

AGREEMENT NUMBER:
 NPD-04-309

11. SPECIFIC OBJECTIVES:

DEVELOPMENT OF AN AIRBORNE DATA COLLECTION SYSTEM WITH ONBOARD POSITIONING FOR LORAN-C AND NAVSTAR
 GPS TESTING, PARTICULARLY AT LOCATIONS REMOTE FROM FAATC RANGE FACILITIES. ALSO THE DEVELOPMENT OF
 A GROUND PROCESSING SYSTEM FOR DATA REDUCTION.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURR DATE
MC		ATADS AIRBORNE EQUIPMENT DELIVERY	11/81
MC		ADD'L ATADS POSITIONING AIRBORNE EQPT DELIVERY	1/82
MC		ATADS GROUND PROCESSING SYSTEM DELIVERY	1/82
		DRAFT ATADS FINAL REPORT (CONTRACTOR)	5/82
		DRAFT ATADS FINAL REPORT (FAATC)	5/82

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 048-311-010 2. START DATE: 9/80 3. REVISION NUMBER: 0
 4. TITLE: LORAN-C GENERAL AVIATION RECEIVERS 5. MANAGER: GEORGE QUINN
 6. ORGANIZATION: ARD-310 7. TELEPHONE NUMBER: 202-426-8596
 9. REQUIREMENT: INPUT TO THE FAA 1982 NAVIGATION RECOMMENDATION; FRP 7/80

10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 TRANSPORTATION SYSTEMS CENTER
 FAA TECHNICAL CENTER

AGREEMENT NUMBER:
 FPA # FA-192
 TED # 04-162

11. SPECIFIC OBJECTIVES:

ESTABLISH MINIMUM PERFORMANCE STANDARDS FOR LOW-COST, GENERAL AVIATION LORAN-C AVIONICS AND
 ESTABLISH FEASIBILITY OF PRODUCING AVIONICS AT A \$3,000 UNIT CCST (FY-80 DOLLARS).

12. MILESTONES:

TYPE INDICATOR	DESCRIPTION	CURR DATE
"	AWARD CONTRACT LORAN-C RECEIVER	9/80
"	REPORT: LORAN-C G/A RCVR DESIGN STUDY	3/81

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 048-311-020 2. START DATE: 10/80 3. REVISION NUMBER: 0
 4. TITLE: LORAN-C SYSTEM CONFIGURATION 5. MANAGER: GEORGE QUINN
 6. ORGANIZATION: AND-310 7. TELEPHONE NUMBER: 202-426-8596
 9. REQUIREMENT: INPUT TO THE FAA 1982 NAVIGATION RECOMMENDATION; FRP 7/80
 10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:

AGREEMENT NUMBER:

11. SPECIFIC OBJECTIVES:

DETERMINE THE NUMBER (COST INPUT TO RECOMMENDATION) AND POSSIBLE SITES FOR LORAN-C STATIONS NEEDED TO PROVIDE COMPLETE AND REDUNDANT SIGNAL COVERAGE OVER THE 48 CONTIGUOUS STATES.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURR DATE
MC		DRAFT REPORT: LORAN-C CONFIG. FOR CIVIL AVIATION	9/81
I		DRAFT REPORT: CROSS RATE INTERFERENCE ANALYSIS	12/81
M		DRAFT REPORT: VOR/DME COVERAGE STUDY (REDUNDANCY)	6/82

RESEARCH AND TECHNOLOGY
TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 048-311-030 2. START DATE: 10/78 3. REVISION NUMBER: 0
4. TITLE: LORAN-C SHORT-TERM STABILITY 5. MANAGER: GEORGE QUINN
6. ORGANIZATION: APD-310 7. TELEPHONE NUMBER: 202-426-8596
9. REQUIREMENT: INPUT TO THE FAA 1982 NAVIGATION RECOMMENDATION, FPP 7/80
10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
FAA TECHNICAL CENTER

AGREEMENT NUMBER:
TRD # 04-162

11. SPECIFIC OBJECTIVES:

THROUGH ANALYSIS OF FIELD DATA COLLECTED USING A SPECIALLY EQUIPPED TEST VAN, DETERMINE IF LORAN-C SIGNALS ARE SUFFICIENTLY STABLE FOR USE IN NON-PRECISION APPROACHES.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CUFR DATE
MC	N	DRAFT REPORT: CONT. LORAN-C SIGNAL STAB. ANALYSIS	6/82

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 048-311-050 2. START DATE: 10/78 3. REVISION NUMBER: 0
 4. TITLE: LORAN-C FLIGHT EVALUATION 5. MANAGER: GEORGE QUINN
 6. ORGANIZATION: RPD-310 7. TELEPHONE NUMBER: 202-426-8596
 8. REQUIREMENT: INPUT TO THE FAA 1982 NAVIGATION RECOMMENDATION; FFP 7/80
 10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 FAA TECHNICAL CENTER

AGREEMENT NUMBER:
 TFD # 04-162

11. SPECIFIC OBJECTIVES:

INVESTIGATE THE CURRENT PERFORMANCE OF LORAN-C NAVIGATION IN MOUNTAINOUS AREAS WITH AVAILABLE AVIONICS. SPECIAL ATTENTION WILL BE DIRECTED TOWARD USE OF LORAN-C AS AN APPROACH AID AT SMALL AIRPORTS IN VALLEYS.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CUFF DATE
R		REPORT: LORAN-C FLIGHT EVAL.--WEST COAST	3/80
N	N	DRAFT TEST PLAN: NEW TECH. L/C RECEIVERS	9/82
NC	N	DRAFT REPORT: LORAN-C MOUNTAINOUS AREA TESTS	9/82

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 048-311-060 2. START DATE: 5/79 3. REVISION NUMBER: C
 4. TITLE: LORAN-C ANTENNAS EVALUATION 5. MANAGER: GEORGE QUINN
 6. ORGANIZATION: ARD-310 7. TELEPHONE NUMBER: 202-426-8596
 9. REQUIREMENT: INPUT TO THE FAA 1982 NAVIGATION RECOMMENDATION; FEP 7/80
 10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:

AGREEMENT NUMBER:

11. SPECIFIC OBJECTIVES:

DEVELOP METHODS AND TECHNIQUES USEFUL IN THE REDUCTION OF AIRCRAFT NOISE, PARTICULARLY DUE TO PRECIPITATION STATIC, THAT INTERFERES WITH THE RECEPTION OF LORAN-C SIGNALS. FLIGHT TESTS IN VARIOUS TYPES OF PRECIPITATION AND IN THE VICINITY OF LIGHTNING WILL BE CONDUCTED AS WILL LABORATORY SIMULATIONS OF NOISE AND LIGHTNING.

12. MILESTONES:

TYPE	DESCRIPTION	CORR DATE
INDICATOR	REPORT: LITERATURE SEARCH PRIOR NOISE EFFORTS	2/81
	INITIATE LIGHTNING DISCHARGE TESTS (WPAFB)	8/81
	REPORT: LORAN-C ANTENNAS EVALUATION	4/82

RESEARCH AND TECHNOLOGY
TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 048-312-010

2. START DATE: 10/80

3. REVISION NUMBER: C

4. LOAN-C IMPACT ON FAA OPERATIONS

5. MANAGER: GEORGE QUINN

6. DIVISION: AND-310

7. TELEPHONE NUMBER: 202-426-6596

8. RELEVANT: INPUT TO THE FAA 1982 NAVIGATION RECOMMENDATION; FPP 7/80

9. COOPERATING GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:

AGREEMENT NUMBER:

TECHNICAL OBJECTIVES:

ANALYZE THE EFFECTS OF THE EXTENSIVE USE OF LOAN-C IN THE NAS ON FAA OPERATIONS AND SERVICES.
INCLUDED IN THE AREAS STUDIED WILL BE NOTAMS, FLIGHT INSPECTION, CHARTING CHANGES, ETC. A PARALLEL
ACTIVITY FOR NAVSTAR GPS IS PROVIDED IN PROJECT 049-312-010.

STORES:

TYPE		CURR
INDICATOR	DESCRIPTION	DATE
1	REPORT: LOAN-C IMPACT ON FAA OPERATIONS	9/82

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 2/08/82

1. PROJECT NUMBER: 048-312-020 2. START DATE: 10/79 3. REVISION NUMBER: 0
 4. TITLE: LORAN-C FLIGHT INSPECTION 5. MANAGER: GEORGE QUINN
 6. ORGANIZATION: AND-310 7. TELEPHONE NUMBER: 202-426-8596
 8. REQUIREMENT: INPUT TO THE 1982 NAVIGATION RECOMMENDATION; RFP 7/80
 10. PARTICIPATING LOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 TRANSPORTATION SYSTEMS CENTER

AGREEMENT NUMBER:
 FEA # FA-192

11. SPECIFIC OBJECTIVES:

ESTABLISH, WITH A RATIONALE FOR EACH PARAMETER TO BE MEASURED, THE FLIGHT INSPECTION REQUIREMENTS AND TECHNIQUES FOR LORAN-C. CONSIDER DATA PROCESSING, STORAGE, AND ANALYSIS REQUIRED FOR THE FLIGHT INSPECTION SYSTEM.

12. FILESTOPS:

TYPE	DESCRIPTION	CURR
INDICATOR	REPORT: LORAN-C FLIGHT INSP. REQUIREMENTS	DATE
	LORAN-C FLIGHT INSP. REQUIREMENTS REVIEW (AFO)	9/81
		10/81

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 048-312-030 2. START DATE: 11/80 3. REVISION NUMBER: 0
 4. TITLE: LORAN-C NOTAM MONITOR DEVELOPMENT 5. MANAGER: GEORGE QUINN
 6. ORGANIZATION: ARD-310 7. TELEPHONE NUMBER: 202-426-8596
 8. REQUIREMENT: SUPPORT INCREASING USE OF LORAN-C BY GENERAL AVIATION; INPUT TO FRP
 10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:

AGREEMENT NUMBER:

11. SPECIFIC OBJECTIVES:

AN ENGINEERING MODEL OF A LORAN-C NOTAM MONITOR WILL BE DEVELOPED. THE MONITOR IS INTENDED TO PROVIDE APPROPRIATE MESSAGES TO PILOTS FOR FLIGHT PLANNING AND TO AIR TRAFFIC PERSONNEL ON THE CONDITION OF LORAN-C SIGNALS ALONG AIR ROUTES IN A GEOGRAPHIC AREA.

12. MILESTONES:

TYPE INDICATOR	DESCRIPTION	CURR DATE
	DELIVERY--ENGINEERING MODEL LORAN-C NOTAM MONITOR	2/81

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 04R-312-040 2. START DATE: 9/79 3. REVISION NUMBER: 0
 4. TITLE: LORAN-C SIGNAL SIMULATOR 5. MANAGER: GEORGE GUINN
 6. ORGANIZATION: AND-310 7. TELEPHONE NUMBER: 202-426-8596
 9. REQUIREMENT: NEEDED TO EVALUATE LORAN-C AVIONICS PERFF. AS INPUT TO FAA NAV DEC.
 10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:

AGREEMENT NUMBER:

11. SPECIFIC OBJECTIVES:

AN ENGINEERING MODEL LORAN-C SIGNAL SIMULATOR WILL BE DEVELOPED FOR USE BY THE FAA IN THE EVALUATION OF LORAN-C RECEIVERS. USE OF A SIMULATOR WILL PROVIDE A RANGE OF NOMINAL AND WORST-CASE SIGNAL CONDITIONS NOT POSSIBLE IN FLIGHT TESTS, AND IT WILL REDUCE THE FLIGHT TEST TIME NEEDED FOR EVALUATIONS.

12. MILESTONES:

TYPE	DESCRIPTION	DATE
INDICATOR	DELIVERY--LORAN-C SIGNAL SIMULATOR	6/83

CONF
 DATE
 6/83

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 048-312-050 2. START DATE: 1/79 3. REVISION NUMBER: 2
 4. TITLE: LORAN FLIGHT FOLLOWING (LOFF)
 5. MANAGER: NORMAN FUJISAKI
 6. ORGANIZATION: APD-310 7. TELEPHONE NUMBER: 202-426-8596
 9. EQUIPMENT: HELICOPTER DEVELOPMENT PLAN (FAA-EP-04-2)
 10. PARTICIPATING DOI/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 TSC
 SOUTHWEST REGION
 FAA TECH CENTER
 WCCG (G-GSR)

AGREEMENT NUMBER:
 PPA FJ-284 REV. 08
 ASM/ARD-81-243
 TPD-04-150
 LTR OF AGREEMENT

11. SPECIFIC OBJECTIVES:

TO EVALUATE THE LORAN FLIGHT FOLLOWING (LOFF) SYSTEM IN THE HOUSTON CENTER AS AN AID TO CONTROLLERS RESPONSIBLE FOR HELICOPTER OPERATIONS IN THE GULF OF MEXICO; TO ENHANCE SAFETY AND EFFICIENCY OF LOW ALTITUDE IFR OPERATIONS.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURR DATE
M	T	INTERIM REPORT COMPLETED (EI)	12/81
M	T	LORAN FLT FOLLOWING SYS DESCRIPTION (HELO IFR OPS)	6/82
M	T	LOFF FINAL REPORT COMPLETED (EI)	3/83

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 049-311-010 2. START DATE: 8/79 3. REVISION NUMBER: 1
 4. TITLE: NAVSTAR GPS FLIGHT EVALUATION 5. MANAGER: NOPHAN FUJISAKI
 6. ORGANIZATION: ARD-310 7. TELEPHONE NUMBER: 202-476-8596
 8. REQUIREMENT: FEDERAL RADIONAVIGATION PLAN

10. PARICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 FAA TECHNICAL CENTER
 USAF (AFAPB-AFWAL)
 USAF (JFPC)

AGREEMENT NUMBER:
 TID 04-109
 IAA DTFA-80-Y-10563
 MOA (8-1-79)

11. SPECIFIC OBJECTIVES:

TO EVALUATE THE OPERATIONAL SUITABILITY OF THE NAVSTAR GLOBAL POSITIONING SYSTEM (GPS) FOR CIVIL AVIATION USE. EMPHASIS IS ON THE SUITABILITY OF LOW-COST TYPE AVIONICS, PARTICULARLY FOR A SINGLE PILOT AIRCRAFT IN A MANEUVERING TERMINAL ENVIRONMENT AND FOR NON-PRECISION APPROACHES. IN 1980-1983, THE DCD Z AND Y SET RECEIVERS WILL BE FLIGHT TESTED. FLIGHT TESTS WILL BE CORRELATED AND SUPPLEMENTED WITH SIMULATIONS PERFORMED ON THE GPS EVALUATOR. IN 1983-1985, THE FAA EXPERIMENTAL DUAL CHANNEL RECEIVER WILL BE EVALUATED.

12. MILESTONES:

TYPE INDICATOR	DESCRIPTION	CURR DATE
P	FAA/U.S. AIR FORCE M.O.A. (Z-SET RECEIVER LOAN)	8/79
P	DELIVER GPS Z SET RECEIVER TO FAA TECHNICAL CENTER	4/80
P	'Y' SET TEST PLAN	3/81
N	TEST PLAN: GPS OPERATIONAL SUITABILITY ('Z-SET')	6/81
N	DRAFT RPT: GPS RFI & FAMILIARIZATION	8/81
N	DRAFT RPT: GPS ENRT & TERN. EXPLOR. TESTS ('Z-SET')	1/82
N	DRAFT REPORT: GPS OPS. SUITABILITY TESTS ('Z-SET')	6/82
N	DRAFT REPORT: GPS OPS. SUITABILITY TESTS (EDCP)	9/84

RESEARCH AND TECHNOLOGY
TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/02/82

1. PROJECT NUMBER: 049-312-010 2. START DATE: 0/00 3. REVISION NUMBER: 1
4. TITLE: NAVSTAR GPS IMPACT ON FAA OPERATIONS 5. MANAGER: NORMAN FUJISAKI
6. ORGANIZATION: ARD-310 7. TELEPHONE NUMBER: 202-426-8596
9. REQUIREMENT: FEDERAL RADIO NAVIGATION PLAN
10. PARTICIPATING GOVT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:

AGREEMENT NUMBER:

11. SPECIFIC OBJECTIVES:

10. DETERMINE THE IMPACT OF GPS ON THE NATIONAL AIRSPACE SYSTEM. STANDARD OPERATING PRACTICES OF THE
FAA SUCH AS ATC PROCEDURES, CHARTING, NOTAMS, FLIGHT INSPECTION, AND CERTIFICATION WILL BE REVIEWED
TO ASSESS THE CHANGES REQUIRED BY USE OF GPS. MAJOR PROBLEMS WILL BE HIGHLIGHTED AND POSSIBLE
SOLUTIONS SUGGESTED. RESOURCE REQUIREMENTS AND SCHEDULES TO ADDRESS IDENTIFIED PROBLEMS WILL BE
ESTIMATED.

12. MILESTONES:

TYPE		
INDICATOR	DESCRIPTION	CURR
		DATE
	REPORT: NAVSTAR GPS IMPACT ON FAA OPERATIONS	9/82

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 052-243-010 2. START DATE: 6/75 3. REVISION NUMBER: 0
4. TITLE: TRAFFIC ALERT & COLLISION AVOIDANCE SYSTEM (TCAS) I & II MINIMUM 5. MANAGER: WILLIAM HYLAND
6. ORGANIZATION: ARD-240 7. TELEPHONE NUMBER: 202-426-C986
9. REQUIREMENT: EXCON MEETING MINUTES E7 (1975)
10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:
- ORGANIZATION NAME: AGREEMENT NUMBER:
 FAA TECHNICAL CENTER TRD 05-172

11. SPECIFIC OBJECTIVES:

DEVELOP A TRAFFIC ADVISORY AND COLLISION AVOIDANCE SYSTEM (TCAS) THAT WILL PROVIDE PROTECTION AGAINST AIRCRAFT EQUIPPED WITH ATCRBS AND MODE S TRANSPONDERS IN LOW TO MEDIUM DENSITY AIRPORTS, AND BOTH WITHIN AND OUTSIDE ATC SURVEILLANCE. THE DEVELOPMENT WILL DEFINE A TCAS-I CONCEPT TO SATISFY USER NEEDS FOR A RELATIVELY LOW COST SYSTEM, AND A TCAS-II CONCEPT THAT PROVIDES THE USER WITH MORE EFFECTIVE SERVICES.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURR DATE
M		ACTIVE BCAS DRAFT NATIONAL STANDARD ISSUED	12/78
M		LL ENGINEERING MODEL DELIVERED	2/80
M		INDUSTRY PROTOTYPES, AVIONICS AWARDED	3/80
PC S	6	PUBL FINAL ACT BCAS NAT STD IN FEDERAL REGISTER	10/80
M		COMMENTS RECEIVED ON NATIONAL STANDARD	3/81
M	7	PROTOTYPE MODEL DELIVERED	6/81
M		ACTIVE BCAS DIRECTIONAL ANTENNA DELIVERED	11/81
M		BEGIN AGENCY COORDINATION OF STANDARD (PR 2-5227)	12/81
M		TEU TECH TEST COMPLETE (PR 2-5219)	1/82
M		D/V BASIC TCAS RPT-T.C. (1-5289;2-5222,5234,5290)	4/82
M		TCAS I FINAL REPORT (PR 2-5210)	4/82
PC		G/A BCAS ENGR MODEL TESTS COMPLETE	6/82
PC S		FIN TCAS II NAT STD APPROV-ACR-1(2-5219;522364;5238)	6/82
PC		OPERATIONAL TESTS COMPLETED (TCAS EXPER UNIT)	6/82
PC		SUPPORT TCAS II MOFS (PR 2-5216,5218,5220,5280)	6/82
M		FINAL REPORT-TCAS EXPERIMENTAL UNIT (TEU)	8/82

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 052-244-010 2. START DATE: 6/75 3. REVISION NUMBER: 0
4. TITLE: TRAFFIC ALERT AND COLLISION AVOIDANCE SYSTEM (TCAS) - II 5. MANAGER: OWEN MC INTIRE
6. ORGANIZATION: ARD-242 7. TELEPHONE NUMBER: 202-426-9342
9. EQUIPMENT: EXCON MEETING MINUTES E7 (1975)

10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 FAA TECHNICAL CENTER
 TSC

AGREEMENT NUMBER:
 TFD 05-172
 PFA FA-280

11. SPECIFIC OBJECTIVES:

TO DEVELOP A TRAFFIC ALERT AND COLLISION AVOIDANCE SYSTEM (TCAS II) THAT PROVIDES THE USER PROTECTION AGAINST AIRCRAFT EQUIPPED WITH TCAS AND ATCRBS OR MODE-S TRANSPONDERS WITH ALTITUDE EXCEEDERS. THE TCAS II ENHANCE WILL OPERATE COMPATIBLY WITH CURRENT AND PLANNED ATC EQUIPMENT AND WILL MEET THE FULL RANGE OF USER NEEDS AND REQUIREMENTS. THE OBJECTIVE WILL BE ACCOMPLISHED BY IN-HOUSE AND CONTRACT EFFORTS, INCLUDING SIMULATIONS, ANALYSIS, AND HARDWARE DEVELOPMENT AND EVALUATION.

12. MILESTONES:

TYPE INDICATOR	DESCRIPTION	CURR DATE
MC	TASK I---FULL BCAS CONT AWARD (PR 82-5204)	1/81
MC	TASK II---CONTRACT AWARD (PR 81-5282)	11/81
MC	TASK I---COMPLETE DESIGN SPECIFICATION	4/82
MC	TASK II--DEL TCAS IIF* TYPE A-UNIT 1 (PR 2-5226)**	8/82
MC	TASK II--DELIVER TCAS-IIE* TYPE A (UNIT #2) T-II	10/82
MC	TASK II--MODIFY TCAS-IIF* TYPE B (UNIT #1) T-II	6/83
MC	TASK II--MODIFY TCAS IIE* TYPE B (UNIT #2) T-II	8/83
MC S	U.S. NAT STD PUBL IN FED REG (PR 2-5216;5200;5220)	6/84
MC	SUPPORT TCAS IIE MOPS (PR 82-5216)	6/84

 RESEARCH AND TECHNOLOGY

TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 062-222-010 2. START DATE: 11/77 3. REVISION NUMBER: 3
 4. TITLE: SMALL VOICE SWITCHING AND CONTROL DEVELOPMENT 5. MANAGER: CHARLES BEAM
 6. ORGANIZATION: AND-220 7. TELEPHONE NUMBER: 202-426-8500
 9. REQUIREMENT: 9550 AAF-75-17

10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 FAA TECHNICAL CENTER

AGREEMENT NUMBER:
 TPD 06-761

11. SPECIFIC OBJECTIVES:

PROVIDE AN ENGINEERING MODEL FOR T&E OF COMMUNICATION SYSTEM FOR SMALL TOWERS. PROVIDE INPUT TO
 VSCS SPEC.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CONF	DATE
N		CONTRACT AWARD FOR SVSS ENGRG MODEL		1/80
N		ENGINEERING MODEL DELIVERY		9/82
N		SVSS TECH DATA PACKAGE TO AAF		12/82
N		ENGR. MODEL T&E COMPLETE		4/83
N		SVSS COMPLETION REPORT		9/83

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/02/82

1. PROJECT NUMBER: 063-221-010 2. START DATE: 11/73 3. REVISION NUMBER: 3
 4. TITLE: NATIONAL AIRSPACE DATA INTERCHANGE NETWORK (NADIN) ENHANCEMENTS 5. MANAGER: CHARLES LAROF
 6. ORGANIZATION: ARD-220 7. TELEPHONE NUMBER: 202-426-6794
 9. REQUIREMENT: ARD LTR TO AAF-1 DTD 9-17-75; NADIN ACQUISITION PAPER
 10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGENCY NUMBERS:

ORGANIZATION NAME:

AGREEMENT NUMBER:

11. SPECIFIC OBJECTIVES:

DEVELOP A SYSTEM DESIGN AND SPECIFICATION FOR ENHANCEMENT TO THE INITIAL NADIN. PROVIDE ENGINEERING AND CONSULTING SERVICE TO AAF AS REQUESTED DURING THE PROCUREMENT AND DEPLOYMENT OF THE INITIAL NADIN.

12. MILESTONES:

TYPE			CURR
INDICATOR	DESCRIPTION		DATE
MC	NADIN TDP TO AAF FOR MOD II FSS		12/80
MC	NADIN TDP TO AAF FOR PAL OF INITIAL ENHANCEMENTS		6/81
MC	STDY RPT-NADIN EXPANSION TO SUPT ATC CPU REPLACMT		6/82
MC	NADIN TDP TO AAF FOR RMMS		6/82
M	2 NADIN ENHANCEMENT FOR INTERCONN INROUTE COMPUTERS		9/83

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/06/82

1. PROJECT NUMBER: 064-221-020 2. START DATE: 10/78 3. REVISION NUMBER:
 4. TITLE: EMERGENCY LOCATOR TRANSMITTER IMPROVEMENT 5. MANAGER: MARTIN NATCHIPOISKY
 6. ORGANIZATION: ARD-220 7. TELEPHONE NUMBER: 202-426-3076
 8. REQUIREMENT: 9550-AFF-100-78-162 , AFF-1 DIRECTION
 10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 NASA

AGREEMENT NUMBER:
 79WAI-002

11. SPECIFIC OBJECTIVES:

AN INTERAGENCY AGREEMENT WITH NASA IS PROVIDING REQUIRED CONTRACTOR SUPPORT IN ANALYSIS OF CURRENT
 ELT PROBLEMS, DEVELOPING GUIDANCE FOR PROPER INSTALLATION TECHNIQUES AND IMPROVED SYSTEM HARDWARE
 COMPONENTS. ADDITIONAL CONTRACTOR SUPPORT WILL BE REQUIRED TO DEVELOP POSSIBLE INSPECTION/TEST
 PARAMETERS TO ASSURE PROPER OPERATION OF INSTALLED ELTS AND TO TEST PRODUCTION SAMPLES OF SECOND
 GENERATION IMPROVED ELTS FOR TSO COMPLIANCE AS THEY COME ON THE MARKET.

12. MILESTONES:

TYP:	DESCRIPTION	CURR
INDICATOR		DATE
1	ELT IAA WITH NASA SIGNED	12/78
2	REPORT ON INSTALLATION GUIDANCE	8/82
3	REPORT ON CRASH SENSOF IMPROVEMENT	12/82
4	REPORT ON REMOTE COCKPIT MONITOR	12/82
5	REPORT ON TLE OF PROD SAMPLES (FY-83;300K;WASH)	12/85

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 071-313-010 2. START DATE: 1/72 3. REVISION NUMBER: 4
 4. TITLE: ILS SUSTAINING ENGINEERING 5. MANAGER: CARL PETERSON
 6. ORGANIZATION: AFD-320 7. TELEPHONE NUMBER: 202-426-9240
 8. REQUIREMENT: 9550 REQUESTS;AAF-420/AFD-320 AGREEMENTS;FEE BUDG.REQUEST
 10. INITIATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 FFA TECHNICAL CENTRE
 REGIONS

AGREEMENT NUMBER:

11. SPECIFIC OBJECTIVES:

DEVELOP EQUIPMENTS, TECHNIQUES, STANDARDS WHERE NEEDED TO ENHANCE THE CONVENTIONAL ILS PERFORMANCE CAPABILITY AND RELIABILITY UNDER ALL CONDITION OF SITING AND WEATHER. RESPOND TO AND TAKE ACTION RELATIVE TO SPECIFIC FIELD PROBLEMS AS REQUESTED.

12. MILESTONES:

TYPE INDICATOR	DESCRIPTION	CUFR DATE
"	LOC. SLOTTED CARLF ANTENNA DEVELOPMENT FINAL RPT	4/82
"	VECTOR FAR FIELD MONITOR (VFFM) TDP	4/82
"	GS UPSLP ANT AND SHADOWN MON TDP	7/82

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 073-320-010 2. START DATE: 9/77 3. REVISION NUMBER: 7
 4. TITLE: HEAD-UP DISPLAY (HUD) SIMULATION AND FLIGHT TEST 5. MANAGER: R. NEELAND
 6. ORGANIZATION: AID-340 7. TELEPHONE NUMBER: 202-426-6605
 9. REQUIREMENT: AFS-1 LTR. TO AFD-1, DTD. 04/20/76; PCA-1 LTR. TO NASA, DTD. 09/02/76
 10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 NASA/AMES RESEARCH CENTER
 FAA TECHNICAL CENTER

AGREEMENT NUMBER:
 FA77WAI725
 TPD-07-116

11. SPECIFIC OBJECTIVES:

DETERMINATION OF THE SAFETY CONTRIBUTION OF HUD TO LARGE TURBO-JET OPERATIONS AND FLIGHT TEST OF HUD IN AGENCY B-727 AIRCRAFT.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CUPR	DATE
		FINAL STM REPORT (NASA)		8/80
	HC N	SYSTEM INTEG INTO FLT TEST ACFT (HUD)		2/81
	HC S N	HUD FLT TEST REPORT (FAATC)		1/82
	" H 2	HUD RISK ASSESSMENT-FINAL BRIEFING		3/82
	"	CERTIFICATION GUIDELINES FOR HUD		12/82
	"	REPORT ON ADVANCED HUD CONCEPTS		9/84
	" P	CERTIFICATION GUIDELINES FOR ADV. HUD		10/86

RESEARCH AND TECHNOLOGY
TECHNICAL PROGRAM DOCUMENT 1

REPORT DATE: 3/06/82

1. PROJECT NUMBER: 073-330-010

2. START DATE: 0/00

3. REVISION NUMBER: 0

4. PERIPHERAL DISPLAY FOR GENERAL AVIATION COCKPIT

5. MANAGER: J.E. MCVICKER

6. SITUATION: APP-340

7. TELEPHONE NUMBER: 202-426-8605

8. DOCUMENT: FSS MASTER PLAN, JANUARY 1978

INITIATING FBI/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
FAATC

AGREEMENT NUMBER:

IFIC OBJECTIVES:

DEVELOP, EVALUATE AND DEMONSTRATE A SYSTEM TO PROVIDE A REAL-TIME WEATHER PRESENTATION, ALONG WITH
NEAR-INSTANT FLIGHT INFORMATION, IN-FLIGHT TO THE GENERAL AVIATION PILOT. FAATC WILL FLIGHT
TEST, DEMONSTRATE AND REPORT ON THE FINAL EVALUATION. DIGITIZED WEATHER DATA ON VOR VOICE CHANNEL
SENT TO AN AIRBORNE DECODER PROVIDES THE PILOT WITH A COCKPIT WEATHER DISPLAY. ADDITIONAL
EVALUATIONS WILL BE EVALUATED.

STORIES:

TYPE	DESCRIPTION	CURR DATE
INDICATOR	FLIGHT TEST AND EVALUATION COMPLETE	11/81
Z	COST/BENEFIT STUDY	5/82

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/CR/82

1. PROJECT NUMBER: 073-342-000 2. START DATE: 0/00 3. DIVISION NUMBER: 0
 4. TITLE: ADVANCED HEAD DOWN DISPLAYS (HDD) 5. MANAGER: J. P. WICKER
 6. ORGANIZATION: ARD-340 7. TELEPHONE NUMBER: 202-426-8605
 8. REQUIREMENT: COCKPIT/CREW INTEGRATION PROGRAM PLAN (DRAFT)
 10. PARTICIPATING GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 NASA

AGREEMENT NUMBER:

11. SPECIFIC OBJECTIVES:

INVESTIGATE THE IMPACT OF ADVANCED FLIGHT PATH SYMBOLOGY AND THE FLIGHT PATH/MISSION MANAGEMENT IMPROVEMENT ASSOCIATED WITH NEXT GENERATION AVIONICS AND DISPLAYS. PRODUCT: PROVIDE SUPPORTING DATA AND CERTIFICATION GUIDELINES FOR ADVANCED DIGITAL AVIONICS AND DISPLAYS.

12. MILESTONES:

TYPE			CURR
INDICATOR		DESCRIPTION	DATE
1	2	ADVANCED HDD SYMBOLOGY STUDY	10/83
2	2	SIM STUDY FLT PATH INPR/CONVENT INSTR VS ADV HDD	12/84
3	2	CERTIFICATION GUIDELINE STUDIES/DIG AVIONICS/HDD	6/86

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/06/82

1. PROJECT NUMBER: 075-325-010 2. START DATE: 7/71 3. REVISION NUMBER: 4
 4. TITLE: DEVELOP MICROWAVE LANDING SYSTEM (MLS) 5. MANAGER: DOUGLAS VICKERS
 6. ORGANIZATION: ARD-320 7. TELEPHONE NUMBER: 202-426-2072
 8. PLACEMENT: NATIONAL PLAN DEV. OF MLS (JUL 71) AND JUNE 1978 UPDATE
 10. PARTICIPATING GOVT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME: AGREEMENT NUMBER:
 DOD(USA,USN,USAF) AND NASA
 FRA TECHNICAL CENTER
 TSC

11. SPECIFIC OBJECTIVES:

DEVELOP A NEW COMMON CIVIL/MILITARY APPROACH AND LANDING SYSTEM THAT WILL MEET THE FULL RANGE OF
 USMC OPERATIONAL REQUIREMENTS WELL INTO THE FUTURE AND BE SELECTED FOR INTERNATIONAL STANDARDIZATION
 AS A REPLACEMENT FOR THE CURRENT INSTRUMENT LANDING SYSTEM (ILS).

12. MILESTONES:

TYPE INDICATOR	DESCRIPTION	CURR DATE
M	DELIVER BASIC (WIDE) CONFIGURATION	12/79
M	AWOP APPROVAL OF ANGLE SARPS	3/80
M	CONTRACT AWARD FOR LSI(CHIP) DEVELOPMENT	9/80
M	ICAO COM/DIV APPROVAL OF ANGLE SARPS	4/81
MC S	TDP HANDOFF FOR BASIC & SM.COMMUN.CONFIG. - MLS	4/81
M	CONTRACT AWD FOR RADOME/FRANGIBILITY INVESTIGATION	7/81
MC S	TDP HANDOFF FOR EXPANDED CONFIGURATION MLS	9/81
MC S	DELIVERY OF LSI PROTO.RCYR. & DRW.PCKGE.	6/82
S	COMPLETE RADOME/FRANGIBILITY INVESTIGATION	9/82
MC S N	MLS/ENVY FINAL REPORT (DRAFT)	4/83

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/06/82

1. PROJECT NUMBER: 076-311-012 2. START DATE: 1/79 3. REVISION NUMBER: 8
 4. TITLE: AIRCRAFT ALERT SYSTEMS STANDARDIZATION STUDIES 5. MANAGER: JOHN F. HENDRICKSON
 6. ORGANIZATION: ARD-340 7. TELEPHONE NUMBER: 202-426-6605
 9. REQUIREMENT: LETTER AFW-1 TO ARD-1 DATED 10/09/74
 10. PARTICIPATING GOVT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:

AGREEMENT NUMBER:

11. SPECIFIC OBJECTIVES:

THE END ITEM, STDY RPTS. WILL BE DELIV. TO AFO-1 BY 3/81 TO SUPP. NEW AIRCRAFT CERTIFICATION RQTS.
 STDY RPTS. CONTAINING RECOMM. & CONCL. FOR GUIDELINES FOR STANDARDIZATION OF COCKPIT ALERT
 AND WARNING & MONITORING SYS. WILL BE COMPLETED USING INDUSTRY CONTRACT SUPPORT. CREW ACTIVITY LEVEL
 AND WORKLOAD WILL BE CONSIDERED FOR THE PRIORITIZATION.

12. MILESTONES:

TYPE	DESCRIPTION	CURR
INDICATOR		DATE
	CONTRACT AWARD - ACFT ALERT	1/79
MC S	FIN RPT - DFMO STANDZD ALERT SYS	3/81
X	ISSUE STANDARD GUIDELINES	10/81
	COMPLETE FEASIBILITY STUDY	5/82

RESEARCH AND TECHNOLOGY
TECHNICAL PROGRAM DOCUMENT

ISSUE DATE: 3/24/82

1. SEQUENCE NUMBER: 076-320-010 2. START DATE: 3/79 3. REVISION NUMBER: 1
4. TITLE: 11TH SERVICE TEST AND EVALUATION PROGRAM (STEP) 5. MANAGER: STEPHEN EVERETT
6. ABSTRACT: ASD-320 7. TELEPHONE NUMBER: 202-426-2072
8. REQUIREMENT: DIFF PLAN 11-20-78 (AS REVISED), MIS TRANSITION PLAN (APC-01-1) 7-11
9. INITIATING GOVT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME: AGREEMENT NUMBER:
AAF, AFO, AAT, ATF, ALT, APO, AAS, AMA, APT, AWS
EASTERN REGION
FAA TECHNICAL CENTER

11. SPECIFIC OBJECTIVES:

1. DEVELOP AND VALIDATE OPERATIONAL STANDARDS AND PROCEDURES TO FASE TRANSITION FROM RED PHASE TO IMPLEMENTATION PHASE. 2. DEMONSTRATE CAPABILITIES AND BENEFITS OF MIS TO FAA OPS AND USERS.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CUPR DATE
M		DCA RWY 18 INSTALLATION COMPLETE	3/79
M		PHY RWY 17 INSTALLATION COMPLETE	4/80
M		STEP AIRBORNE RECEIVER CONTRACT AWARD	7/80
M		DCA RWY 33 INSTALLATION COMPLETE	12/80
M		CLARKSBURG, W.V. INSTALLATION COMPLETE	8/81
M		CONTRACT AWARD FOR TERPS DATA COLL PKG	10/81
M		INITIAL DELIVERY OF STEP A/B RECEIVERS	11/81
M	N	INSTALLATION OF JET RNAV IN N-4 COMPLETE	2/82
M		START USER OPERATIONS (RANDOM & APPROACH)	2/82
M		DELIVERY OF GMT TWR/FLT INSP PKG COMPLETE	3/82
M		DELIVERY OF TERPS DATA COLL PKG COMPLETE	6/82
M		COMPLETE DELIVERY OF PRE-PROD LSI A/B RECEIVERS	11/82
M		COMPLETE EVALUATION AND REPORTS FOR STEP	3/84
M		COMP INSTALL & VERIF MIS IN LARGE JET AC	4/84
M		COMPLETE FLIGHT SIM & TESTS STEP PH II	4/85

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 2/09/82

1. PROJECT NUMBER: 077-920-210 2. START DATE: 1/79 3. REVISION NUMBER: 4
 4. TITLE: FLIGHT DECK INFORMATION COORDINATION 5. MANAGER: S. WEISS
 6. ORGANIZATION: AFI-340 7. TELEPHONE NUMBER: 202-426-8605

9. AGREEMENT: ISU PROGRAM PLAN

10. PARTICIPATING GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:

AGREEMENT NUMBER:

11. SPECIFIC OBJECTIVES:

TO PROVIDE AFS AND AAT WITH COCKPIT INFORMATION SYSTEMS DESIGN CRITERIA TO BE INTRODUCED INTO THE REGULATORY ENVIRONMENT.

12. MILESTONES:

TYPE INDICATOR	DESCRIPTION	CUFR DATE
1	COCKPIT INFO RMTS STUDY CONTRACT	9/79
4	HANDOFF TO OPERATING SERVICES (FINAL REPORT)	4/81
40 S	FINAL REPORT - FLT DECK INFO COORD	5/81

RESEARCH AND TECHNOLOGY
TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/28/82

1. PROJECT NUMBER: 677-340-010
2. START DATE: 6/80
3. REVISION NUMBER: C
4. TITLE: HUMAN FACTORS STUDY
5. MANAGER: J.J. PARK
6. ORGANIZATION: AF1-340
7. TELEPHONE NUMBER: 202-426-8605
8. REQUIREMENT: SUPPORT FOR ADMINISTRATION HUMAN FACTORS PROGRAM
9. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
AF SYST CTR/ASE/AF FLT DYN LAB
WRIGHT STATE UNIV./AEROSPACE MEDICINE

AGREEMENT NUMBER:
IFA DOT-FA70WAI-173
COMF. #33615-80-K-3627

11. SPECIFIC OBJECTIVES:

THE OBJECTIVE OF THIS INITIAL PROGRAM IS TO DOCUMENT AIRCRAFT WORKLOAD TECHNIQUES. THIS PROG HAS 3 PHASES. TASK 1 WILL CATALOG SUCCESSFULLY APPLIED MEASURES OF WORKLOAD IN AIRCRAFT CERTIFICATION. TASK 2 WILL DOCUMENT MEASURES NOW AVAILABLE AND READY FOR APPLICATION. TASK 3 DELINEATES MEASURES THAT EXIST IN CONCEPT, BUT NEED FURTHER RESEARCH AND DEVELOPMENT FOR REDUCTION TO PRACTICE.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURR
	I	WORKLOAD MEAS TECH USED FOR CERTIFICATION	1/81
	M	WORKLOAD MEAS TECH (UNPROVEN)	3/82
	M	WORKLOAD MEAS TECH FOR FUTURE CERTIFICATION	3/82

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

BUDGET DATE: 3/06/82

1. PROJECT NUMBER: 077-340-020 2. START DATE: 9/80 3. DIVISION NUMBER: 7
 4. TITLE: PILOT FACTORS - NAVIGATION 5. MANAGER: H. SCHLICKENMAIER
 6. ORGANIZATION: AND-340 7. TELEPHONE NUMBER: 202-426-8605
 8. RELATED ERI: COCKPIT/CREW INTEGRATION PROGRAM PLAN(COPIAT), HUM. FACTORS TASK FORCE
 9. ANTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:
 ORGANIZATION NAME: AGREEMENT NUMBER:

11. SPECIFIC OBJECTIVES:

DEFINE FREELY (USING PILOT WORKLOAD AND PERFORMANCE) AS A FUNCTION OF NAVIGATION SYSTEM COMPLEXITY (I.E., AIRBORNE NAVIGATION SYSTEM COST).

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURR DATE
	2	CATALOG CURRENT AIRCRAFT NAV. SYSTEMS BASED ON COST	2/82
	2	SELECT REPRESENTATIVE NAVIGATION SYSTEMS FOR TESTS	2/82
	2	PILOT/FLT. SIMULATOR TESTS OF NAV. SYSTEMS COMP.	8/82
	2	TEST RESULTS-FINAL REPORT	9/82

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

FILED DATE: 3/08/82

1. PROJECT NUMBER: 077-302-030 2. START DATE: 0/00 3. REVISION NUMBER: 1
 4. TITLE: FLIGHT DECK INFORMATION MANAGEMENT 5. MANAGER: J.J. PARR
 6. ORGANIZATION: ARD-740 7. TELEPHONE NUMBER: 202-426-8605
 9. REQUIREMENT: COCKPIT/CRM INTEGRATION PLAN (DP&FT)
 10. ASSOCIATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:

AGREEMENT NUMBER:

11. SPECIFIC OBJECTIVES:

ASSESS THE WORKLOAD IMPACT OF NEW SYSTEMS IN THE COCKPIT AND IDENTIFY SUBJECTS NEEDING DETAILED WORKLOAD EVALUATION PRIOR TO SYSTEM CERTIFICATION.

12. MILESTONES:

TYPE			DESCRIPTION	CURR DATE
INDICATOR				
H	H	Z	DEFINE INFORMATION MANAGEMENT REQUIREMENTS (IME)	8/82
P	H	Z	DEFINE SELECTED NEW SYSTEM IMPACT ON IPP	10/82
P	H	Z	DEFINE AREAS REQUIRING EXPERIMENTATION	12/82
M	H	Z	DEFINE PROBLEMS OF NEW SYSTEM INTEGRATION	11/83
P	H	Z	SIMULATION OF AREAS REQUIRING EXPERIMENTATION	12/84
M	H	Z	FLIGHT CRM FAILURE MODES AND EFFECTS ANALYSIS	12/85

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROCEED DOCUMENT

REPORT DATE: 3/06/82

1. PROJECT NUMBER: 077-343-01. 2. START DATE: 7/81 3. REVISION NUMBER: 1
 4. TITLE: FLIGHT PHASE STATUS MONITORING 5. MANAGER: JOHN F. BENEFICKSON
 6. ORGANIZATION: AND-140 7. TELEPHONE NUMBER: 426-8605
 8. PERIOD: 157TH AFM-1 TO AND-1 DATE: 10/9/74
 10. PARTICIPATING GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:

AGREEMENT NUMBER:

11. SPECIFIC OBJECTIVES:

IMPROVE FLIGHT SAFETY BY AN ADVANCED TECHNOLOGY AUTOMATED SYSTEM MONITORING AIRCRAFT SYSTEMS AND CONTROL SURFACE CONFIGURATION AND EVALUATING AIRCRAFT PERFORMANCE TO ASSIST FLIGHT CREW TO REACT PROMPTLY AND CORRECTLY TO SYSTEM FAILURES / MALFUNCTIONS. THIS IS A CONTRACTUAL EFFORT WITH AIRFRAME MANUFACTURERS WHO WILL ANALYZE CURRENT ACCIDENT/INCIDENT DATA BASES TO DETERMINE SENSOR AND PROCESSING REQUIREMENTS. SAFETY IMPROVEMENT WILL BE EVALUATED USING FLIGHT SIMULATION, A SYSTEM WILL BE DEVELOPED FOR FLIGHT TEST AND DESIGN GUIDELINES WILL BE ISSUED.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CONF	DATE
M	H Z	ADVANCED TECHNOLOGY DISPLAY SYSTEM DESIGN		10/82
A	H Z	DEV CONG AIDED DECISION MAKING (CADM) ALGORITHM		6/83
M	H Z	SYSTEM PROTOTYPE DESIGN COMPLETE		6/84
M	H Z	PROTOTYPE OPERATIONAL EVALUATION		6/85
M	H Z	DESIGN ADVANCED TECHNOLOGY SYSTEM		4/86

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: C77-343-020 2. START DATE: 5/81 3. REVISION NUMBER: 2
 4. TITLE: INVOLVING WAS IMPACT IN THE COCKPIT 5. MANAGER: R. WEISS
 6. ESCALATION: 440-340 7. TELEPHONE NUMBER: 202-426-8605
 9. RELIEF NAME: AIRCRAFT SYSTEMS INTEGRATION PROGRAM PLAN (DRAFT)
 10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 NASA

AGREEMENT NUMBER:
 DOT-FA79WAI-061

11. SPECIFIC OBJECTIVES:

DEVELOP CRITERIA FOR THE ESTABLISHMENT OF NEW FLIGHT OPERATIONAL PROFILE PATTERNS, TECHNIQUES AND THE
 INTEGRATION INTO ADVANCED DISPLAY CONCEPTS FOR COLLISION AVOIDANCE. ANALYTICAL EVALUATION
 TECHNIQUES, SIMULATION AND FLIGHT TEST VALIDATION TECHNIQUES WILL ALSO BE UTILIZED.

12. MILESTONES:

TYPE				CURR
INDICATOR			DESCRIPTION	DATE
M	H	Z	DEVELOPMENTAL SIMULATION AT BOEING	12/81
M	H	Z	OPERATIONAL SIMULATION AT BOEING	2/82
M	H	Z	INSTALLATION FOR OPERATIONAL EVAL. ON FIELDMONT 727	5/82

RESEARCH AND TECHNOLOGY
TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/06/82

1. PROJECT NUMBER: CRD-502-01 2. START DATE: 6/80 3. REVISION NUMBER: 1
4. TITLE: REFLECTIVE IN-PAVEMENT MARKERS FOR RUNWAYS 5. MANAGER: R. P. AHLERS
6. TRANSMISSION: AND-500 7. TELEPHONE NUMBER: 202-426-3687
8. REQUIREMENT: L-TYPE REQUEST BY AWC-1 JAN 20, 1980
9. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
FAA TECHNICAL CENTER

AGREEMENT NUMBER:
TII CR-493

11. SPECIFIC OBJECTIVES:

TEST AND EVALUATION OF RETROREFLECTIVE IN-PAVEMENT MARKERS FOR IMPROVING GUIDANCE FOR AIRCRAFT
LANDING OPERATIONS.

12. MILESTONES:

TYPE INDICATOR	DESCRIPTION	CURR DATE
M C N	SELECTION OF REFLECTIVE DEVICE FOR TEST	12/80
M C N	INSTALLATION OF DEVICES	1/81
M C N	DECISION ON WHETHER TO TEST IN-SERVICE	3/82
M C N	FIELD TESTS AT TECHNICAL COMPLETE	3/82
M C N	REPORT ON TECHNICAL CENTER TEST AND EVALUATION	6/82
M C N	COMP REFLECT. HWY MARK IN-SERV AIRPORTS	7/83
M C N	FINAL REPORT - REFI IN-PAVEMENT MARKERS/RUNWAYS	9/83

RESEARCH AND TECHNOLOGY

TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 081-502-027 2. START DATE: 4/78 3. REVISION NUMBER: 1
4. TITLE: EVALUATION OF PRECISION APPROACH PATH INDICATOR (PAPI) 5. MANAGER: S. A. CANNISTEA
6. ORGANIZATION: ARD-500 7. TELEPHONE NUMBER: 202-426-2454
9. REQUIREMENT: 9550-1, AAP-550-78-2
10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
FAA TECHNICAL CENTER, ACT-440

AGREEMENT NUMBER:
TRD 08-493

11. SPECIFIC OBJECTIVES:

TO DETERMINE THE SIGNAL CHARACTERISTICS AND PERFORMANCE OF BRITISH PAPI SYSTEM VERSUS VASI.

12. MILESTONES:

TYPE			CURR
INDICATOR	DESCRIPTION		DATE
M	PAPI EQUIPMENT INSTALLED AND IN SERVICE		12/80
MC	PAPI IN-SERVICE TESTING COMPLETE		4/82
V	FINAL REPORT - PAPI EVALUATION		3/83

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 5/06/82

1. PROJECT NUMBER: 061-502-030 2. START DATE: 1/80 3. REVISION NUMBER: 1
 4. TITLE: MARKING AND LIGHTING OF UNPAVED RUNWAYS 5. MANAGER: S. A. CANNISTO
 6. CLASSIFICATION: AFD-500 7. TELEPHONE NUMBER: 202-426-4454
 9. REQUIREMENT: AIRPORT NEEDS AND INITIATIVES DOCUMENT
 10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 FAA TECHNICAL CENTRE, ACT-440

AGREEMENT NUMBER:
 ITT OR-493

11. SPECIFIC OBJECTIVES:

TEST AND EVALUATION OF LOW COST MARKING AND LIGHTING SYSTEMS FOR UNPAVED GENERAL AVIATION AIRPORTS.

12. MILESTONES:

TYPE INDICATOR	DESCRIPTION	CURF DATE
E	COMPLETE INSTALLATION AT TEST SITES	6/82
M	COMPLETE TEST AND EVALUATION	6/83
V	FINAL REPORT - MARKING/LIGHTING OF UNPAVED RWY'S	12/83

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/06/82

1. FILE NUMBER: 082-520-01 2. START DATE: 10/79 3. REVISION NUMBER: 1
 4. REPORT PAVEMENT MATERIALS AND CONSTRUCTION TECHNIQUES 5. MANAGER: A. MC LAUGHLIN
 6. INITIATION: ARD-500 7. TELEPHONE NUMBER: 202-426-9396
 8. ALIGNMENT: 9500'S AND LETTER REQUESTS FROM OFFICE OF AIRPORT STANDARDS
 9. INDICATING LOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:	AGREEMENT NUMBER:
CORPS OF ENGINEERS	DT-FA01-81-Y-10533
CLEMSON UNIVERSITY	DT-FA01-81-C-10067
RESOURCE INTERNATIONAL INC.	DT-FA01-81-C-10043

CIFIC OBJECTIVES:

1. TEST PERFORMANCE OF NEW MATERIALS, IMPROVE MATERIALS CHARACTERISTICS AND DEVELOP ADVANCED CONSTRUCTION TECHNIQUES IN ORDER TO ACHIEVE PAVEMENT DURABILITY AND MORE COST EFFECTIVE CIVIL INFRASTRUCTURE.

ESTIMATES:

TYPE	INDICATOR	DESCRIPTION	DATE
P		CONF'D BASE COURSE UTIL A/P PVMTS I (I/H) - START	2/79
P		UPDATE OVERLAY THICKNESS CRITERIA - AWARD CONTRACT	2/81
P		FLD VALID STAT-BAS'D ACCEPT PLAN FLEX-AND CONTRACT	4/81
P		USE WORKOWN FAB REDUCE REFLECT CRACK - AWARD CONT	5/81
P		LINE-CEMENT-FLYASH PVMT STABILIZER (IH) - (START)	6/81
P		CONF'D BASE COURSE UTIL A/P PVMTS I - (IH) COMP	2/83
P		LINE-CEMENT-FLYASH PVMT STAB. (IH) - FINAL RPT	12/83
P		UPDATE OVERLAY THICK. CRIT-FLEX PVMT - AND CONT	2/84
P		APPLIC NEW & IMPROVED MATERIALS - CONTRACT AWARD	4/85
P		CONF'D BASE COURSE UTIL A/P PVMTS II-AND CONT	4/85
P		FLD VALID STAT-BAS'D ACCEPT PLAN FLEX - FINL RPT	10/85
P	Z	STAT. BASED ACCEPT PLAN - RIGID PVMTS - AND CONT	2/86
P		APPLIC NEW & IMPROVED MATERIALS - FINAL REPORT	10/86
P		USE WORKOWN FAB REDUCE REFLECT CRACK - FINL RPT	10/86
P	Z	ADVANCED CONSTRUCTION TECH. RPT -AND CONTRACT	3/87
P		VALID MEMBRANE INTERLAYER PVMT SYS (MHS)-AND CONT	3/87
P		CONF'D BASE COURSE UTIL A/P PVMTS II - FINL REPORT	10/87
P		UPDATE OVERLAY THICK. CRIT-FLEX PVMTS - FINL RPT	9/88
P		VALID MEMBRANE INTERLAYER PVMT SYS (MHS) FINL RPT	9/89
P		STAT BASED ACCEPT CRIT/RIGID A/P PVMTS-FINAL RPT	6/90

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/09/82

1. PROJECT NUMBER: 182-525-22 2. START DATE: 6/74 3. REVISION NUMBER: 1
 4. TITLE: AIRPORT PAVEMENT - DESIGN AND EVALUATION 5. MANAGER: H. TOMITA
 6. ORIGINATOR: AED-500 7. TELEPHONE NUMBER: 202-426-9396
 8. FUNDING: PROGRAM PLAN FAA-ED-CR-82 AND PROGRAM PLAN FAA-ED-CR-82A
 10. PARTICIPATING GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:
 ORGANIZATION NAME: AGREEMENT NUMBER:

11. SCIENTIFIC OBJECTIVE:

TO DEVELOP NEW AND IMPROVED TECHNOLOGIES FOR AIRPORT PAVEMENTS BASED ON: (1) ACCURATE AND EFFECTIVE DESIGN CRITERIA, LOW COST/BENEFIT RATIOS AND LOW ENERGY CONSUMPTIONS, (2) RAPID AND EFFECTIVE EVALUATION USING NON-DESTRUCTIVE TESTING METHODS, AND (3) CONSIDERATION OF ALL POSSIBLE REHABILITATION SCHEMES TO MEET EXISTING, CHANGING OR NEW REQUIREMENTS.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURR DATE
*		FROST/HEAVE PREDICTIVE TECH AWARD IAA	2/75
*		DEFLECTION BASIN NDT INITIATE CONTRACT	3/77
*		RESPONSE OF PAVTS TO FREEZE/THAW AWARD IAA	10/78
* P		NDT FREQ SWEEP TECH SUPPORT (PAILLIN)	3/81
* P		PVMT DESIGN CRIT FOR HIGH TRAFFIC VOL - AWARD IAA	5/81
* I		NDT FREQ SWEEP PROGRAM (YANG) - AWARD CONTRACT	9/81
*		UPDATE NDT (IH) BULLETIN (START)	10/81
*		INITIATE RADAR AND MICROWAVE NDT (IN HCUSE)	10/81
*		DEFLECTION BASIN NDT FINAL REPORT	6/82
* P		NDT FREQ SWEEP SOURCE PROGRAM - FINAL REPORT	6/82
*		UPDATE NDT BULLETIN (IH) - FINAL REPORT	6/82
* P		RESPONSE PVMTS TO FREEZE/THAW - FINAL REPORT	8/82
* I		NDT FREQ SWEEP TECH SUPPORT (PAILLIN) FINAL RPT	9/82
*		RADAR & MICROWAVE NDT (IH) - FINAL REPORT	6/83
*		FROST/HEAVE PREDICTIVE TECH FINAL REPORT	9/83
* Z		UNIVERSAL PAVEMENT DESIGNS - AWARD CONTRACT	3/86
* P		PVMT DES CRIT FOR HI TRAFFIC VOLUME - FINAL REPORT	12/87

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/06/82

1. PROJECT NUMBER: CR2-520-030 2. START DATE: 4/77 3. REVISION NUMBER: 1
 4. TITLE: AIRPORT PAVEMENT PERFORMANCE AND MANAGEMENT 5. MANAGER: F. HOAN
 6. ORGANIZATION: ARD-500 7. TELEPHONE NUMBER: 202-426-9396
 8. REFERENCE: PROGRAM PLAN FAA-ED-CR-02A
 10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:

AGREEMENT NUMBER:

11. SPECIFIC OBJECTIVES:

PROVIDE CONTINUING EVALUATION OF PERFORMANCE OF PAVEMENT CONSTRUCTED WITH ADAP FUNDS IN ACCORDANCE WITH FAA CRITFPA. DEVELOP UNIFORM METHODS OF EVALUATING AND REPORTING CONDITION OF PAVEMENT AND SCHEDULING WHEN MAINTENANCE IS REQUIRED.

12. MILESTONES:

TYPE INDICATOR	DESCRIPTION	CURR DATE
*	RUBBER REMOVAL FROM PFC AWARD CONTRACT	4/81
*	SULPHUR-EXTENDED ASPHALT - START PROJECT	6/81
*	PAVEMENT MANAGEMENT SYSTEM (IM) - START PROJECT	10/81
*	SULPHUR EXTENDED ASPHALT (IM) - FINAL REPORT	6/82
*	RUBBER REMOVAL FROM PFC - REPORT PHASE I	6/82
*	PAVEMENT MANAGEMENT SYSTEM - FINAL REPORT	10/82
*	RUBBER REMOVAL FROM PFC II INITIATE IAA	2/84
*	RUBBER REMOVAL FROM PFC II - FINAL REPORT	3/85
*	RUBBER REMOVAL FROM PFC II REPORT T&F	6/85

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 082-531-010 2. START DATE: 6/72 3. REVISION NUMBER: 1
 4. TITLE: RUNWAY SURFACE TRACTION 5. MANAGER: H. D. AUERIO
 6. ORGANIZATION: AED-500 7. TELEPHONE NUMBER: 202 426-3687
 8. EQUIPMENT: 955010 AAF-580-72-1, AAF-502-76-4 AND LPP IN DRAFT FORM
 10. PARTICIPATING GOVT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 NAVAL AIR ENGINEERING CENTER
 FAA TECHNICAL CENTER

AGREEMENT NUMBER:
 FA746AI-423
 TID 08-459

11. SPECIFIC OBJECTIVES:

DEVELOP NEW TECHNIQUES FOR IMPROVED BRAKING PERFORMANCE OF AIRCRAFT ON WATER COVERED RUNWAYS.
 DEVELOP METHODOLOGY TO MEASURE AND RELATE THE PREVAILING RUNWAY CONDITIONS TO AIRCRAFT BRAKING
 CAPABILITY. DEVELOP METHODOLOGY OF THE INFORMATION GATHERED IN THE FIRST TWO OBJECTIVES FOR
 EFFECTIVE MAINTENANCE AND SAFE OPERATIONS AT THE AIRPORT.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURR DATE
		PORTLAND CEMENT CONCRETE TESTS	12/74
AC	N	FINAL REPORT-GROOVE PERF. PORTLAND CEMENT CONCRETE	3/81
XC		RUNWAY SURFACE DRAINAGE CONTRACT AWARD	4/81
XC	N	FINAL REPORT ON RUNWAY DRAINAGE	8/82
XC	N	FINAL RFT-RUNWAY SURFACE TREATMENTS	12/82

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 084-351-02-1 2. START DATE: 6/79 3. REVISION NUMBER: 2
 4. TITLE: VORTEX ADVISORY SYSTEM: DEPARTURE APPLICATIONS 5. MANAGER: M. CLARK
 6. ORIGINATOR: ART-440 7. TELEPHONE NUMBER: 202-426-8605
 8. REQUIREMENT: FAA-BE-21-1A, WAKE VORTEX ASSESSMENT GROUP REPORT 1979
 10. PARTICIPATING GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 TSC

AGREEMENT NUMBER:
 FPI-FA166

11. SPECIFIC OBJECTIVES:

VORTEX BEHAVIOR DATA FROM DEPARTING AIRCRAFT WAS TAKEN AT O'HARE. THE DATA HAS BEEN REDUCED. DATA ANALYSIS AND A FINAL REPORT WILL BE COMPLETED BY 9/82. ISSUANCE OF A FINAL REPORT WILL TERMINATE ACTIVITY UNDER THIS RESUME.

12. MILESTONES:

TYPE INDICATOR	DESCRIPTION	CURR DATE
"	PHASE I DATA COLLECTION COMPLETED	7/80
"	PHASE II DATA COLLECTION COMPLETED	11/80
"	FINAL DATA ANALYSIS COMPLETED (VAS DEPARTURE APPL)	9/82

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 084-351-050 2. START DATE: 10/79 3. REVISION NUMBER: 2
4. TITLE: ADVANCED VORTEX SYSTEMS 5. MANAGER: M. CLARK
6. ORGANIZATION: ARD-340 7. TELEPHONE NUMBER: 202-426-8605
8. ACQUISITION: FAA-ED-21-1A, WAFV VORTEX ASSESSMENT GROUP REPORT 1979
10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 TSC
 USAF

AGREEMENT NUMBER:
 PPA-FA-186
 DOT-FA706AI-173

11. SPECIFIC OBJECTIVES:

THE LONG RANGE OBJECTIVE OF THIS PROJECT IS THE DEVELOPMENT OF AN ADVANCED VORTEX SYSTEM, WITH
 SUPPORTING DATA PACKAGE, TO PROVIDE INCREASED AIRPORT CAPACITY THROUGH MINIMIZATION OF AIRCRAFT WAKE
 VORTICES ON TERMINAL AIR TRAFFIC MANAGEMENT. FY-82 OBJECTIVE IS THE COMPLETION OF FOUR REPORTS ON
 PRIOR VORTEX RESEARCH ACTIVITIES. LONG TERM PROGRAM PLANNING WILL CONTINUE.

12. MILESTONES:

TYPE INDICATOR	DESCRIPTION	CUMULATIVE DATE
W	OPERATIONAL REQUIREMENTS DEFINITION (AVS)	9/81
M	PROTOTYPE SENSOR DESIGNED & FABRICATED	9/85
V	PROTOTYPE AVS DEVELOPED & TESTED	12/87
M P	ADV. VORTEX SYS TDP SUBMITTED TO AAF	12/88

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 084-351-060 2. START DATE: 10/79 3. REVISION NUMBER: 1
 4. TITLE: FAA/NASA/WAKE VORTEX ALLEVIATION PROGRAM 5. MANAGER: W. CLARK
 6. ORGANIZATION: ASD-340 7. TELEPHONE NUMBER: 202-426-8605
 8. REQUIREMENT: TO DEV. DESIGN CRIT. FOR WAKE VORTEX ALLEVIATION FOR AFT. CAPACITY
 10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 NASA IAA
 TSC PPA FA086

AGREEMENT NUMBER:
 80-Y-10540

11. SPECIFIC OBJECTIVES:

DEMONSTRATE THE EFFECTIVENESS OF WAKE VORTEX ALLEVIATION TECHNIQUES TO ALLOW AIRCRAFT TO LAND
 3 NM BEHIND B-747, L-1011 AND DC-10.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURR DATE
M		FLIGHT TEST START - L-1011	8/80
M		FINAL REPORT - L-1011 EVALUATION	12/80
MC		FLIGHT TEST REPORT (WV ALLEVIATION)	9/82
M P		ESTABLISH UPSFT HAZARD CRITERIA	9/83
M P		DEVELOP WAKE VORTEX ALLEV. DESIGN CRIT.	9/84
M P		CERTIFICATION GUIDELINES DEVELOPED	9/86

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 122-109-010 2. START DATE: 7/75 3. REVISION NUMBER: 5
 4. TITLE: COMPUTER SOFTWARE DEVELOPMENT SUPPORT (AED-140) 5. MANAGER: MICHAEL DELIMAN
 6. ORGANIZATION: ARD-110 7. TELEPHONE NUMBER: 202-426-9372
 9. PLACEMENT: FAA-ED-12-2P
 10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 ARD-1

AGREEMENT NUMBER:
 1ED-ED-140

11. SPECIFIC OBJECTIVES:

THIS RESUME ACCOUNTS FOR THE IN-HOUSE EFFORT AT FAATC THAT MANAGES THE EN ROUTE SOFTWARE SUPPORT AT TPIS LOCATION. THIS INCLUDES DAY-TO-DAY TECHNICAL MANAGEMENT OF SOFTWARE DEVELOPMENT ACTIVITIES BEING ACCOMPLISHED BY SUPPORT CONTRACTORS. IN ADDITION, TECHNICAL EVALUATIONS OF SOFTWARE DESIGNS AND CHANGES WILL BE ACCOMPLISHED.

12. MILESTONES:

TYPE INDICATOR	DESCRIPTION	CURR DATE
M	DELIVERY OF 3D2.10 PGM TO CSC	8/80
M	DELIVERY OF A3D2.11 TO SOFTWARE CONTRACTOR	4/81
M	DEL OF A3D2.12 PROGRAM TO SOFTWARE CONTRACTOR (EI)	12/81
M	DEL OF A3D2.13 PGM TO SOFTWARE CONTRACTOR (FI)	6/82
M	COMP 1983 EN ROUTE SOFTWARE FACILITY & LAB RQMT	9/82
M	DEL OF A3D.14 TO SOFTWARE CONTRACTOR	12/82
M	COMP 1984 EN ROUTE SOFTWARE & FACILITY LAB RQMT	9/83

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 122-110-010 2. START DATE: 7/72 3. REVISION NUMBER: 7
 4. TITLE: PROGRAM PLANNING AND SYSTEM ENGINEERING (MITPF) 5. MANAGER: LAUREN W. DOUGLASS
 6. ORGANIZATION: ARD-110 7. TELEPHONE NUMBER: 202-426-0960
 9. REQUIREMENT: FAA-ED-12-2P
 10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 MITPF

AGREEMENT NUMBER:
 FY81 TOS

11. SPECIFIC OBJECTIVES:

FORMULATE DESIGN CONCEPTS OF ADVANCED AUTOMATION CAPABILITIES FOR EN ROUTE SYSTEM APPLICATIONS, IDENTIFY AND SPECIFY NFM INTERFACE REQUIREMENTS RESULTING FROM OTHER E&D PROGRAMS, ASSESS AND DEFINE FUTURE COMPUTER CAPACITY REQUIREMENTS, AND TO ENSURE THAT EN ROUTE SYSTEM DEVELOPMENTS RESULT IN AN INTEGRATED DESIGN, CONSISTENT WITH REQUIREMENTS OF THE EN ROUTE SYSTEM AND GOALS OF IMPROVED SAFETY.

12. FILESTONES:

TYPE INDICATOR	DESCRIPTION	CURR DATE
	PGP PLAN PUBLISHED	3/80
	EN RTE METERING REV FUNCTIONAL SPEC COMP	6/80
	C/R ADVISORY FUNCTIONAL SPEC COMPLETED	7/80
	EN ROUTE METERING DESIGN EVAL TEST PLAN COMPLETE	9/81
	SECTOR MAN/MACHINE INTERFACE FUNCTIONAL RQMTS RPT	4/82
	WX RADAR CONTOUR CONTROLLER EVALUATION REPORT	5/82
	DATA LINK PACKAGE DESIGN COMPLETE	9/82

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 122-111-010 2. START DATE: 9/73 3. REVISION NUMBER: 7
 4. TITLE: SURVEILLANCE SYSTEM IMPROVEMENTS 5. MANAGER: JAMES SHANNON
 6. OPERATION: ARD-110 7. TELEPHONE NUMBER: 202-426-0960
 9. REQUIREMENT: FAA-ED-12-2B

10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 FAATC

AGREEMENT NUMBER:
 TTD 12-214

11. SPECIFIC OBJECTIVES:

MAKE AN FM ROUTE SYSTEM TRACKER MORE RESPONSIVE TO AIRCRAFT TURN MANEUVERS THROUGH THE USE OF RANGE
 RATE DATA FROM MOVING TARGET DETECTION (MTD) EQUIPMENT. IMPROVED RESPONSE WILL IMPROVE PERFORMANCE
 OF CONFLICT ALERT FUNCTION AND RELATED FUNCTIONS.

12. MILESTONES:

TYPE			CUPR
INDICATOR		DESCRIPTION	DATE
M	N	DRAFT REPORT ON ALTITUDE TRACKING COMPLETE	4/82
M	N	FAATC FINAL RPT ON SYS IMPACT COMP (EI)	6/82
M	N	FINAL REPORT ON ALTITUDE TRACKING COMPLETE	12/82

RESEARCH AND TECHNOLOGY
TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 122-112-010 2. START DATE: 0/00 3. REVISION NUMBER: 0
4. TITLE: CONFLICT ALERT MODE C INTRODUCER 5. MANAGER: MICHAEL DELIPAN
6. ORGANIZATION: ARD-110 7. TELEPHONE NUMBER: 202-426-9372
9. REQUIREMENT: FAA-ED-12-24
10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:

AGREEMENT NUMBER:

11. SPECIFIC OBJECTIVES:

12. MILESTONES:

<u>TYPE</u> <u>INDICATOR</u>	<u>DESCRIPTION</u>
2	CONFLICT ALERT IMPROVEMENTS FOR VFR ADVISORIES

<u>CURR</u> <u>DATE</u>
4/88

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 122-112-020 2. START DATE: 10/76 3. REVISION NUMBER: 4
 4. TITLE: CONFLICT RESOLUTION ADVISORY 5. MANAGER: MICHAEL DELINAF
 6. ORGANIZATION: ASD-110 7. TELEPHONE NUMBER: 202-426-9372
 9. REQUIREMENT: FAA-ED-12-2H
 10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 ASD-140 (GARY ELLISON)

AGREEMENT NUMBER:
 TED ED-140

11. SPECIFIC OBJECTIVES:

PROVIDE COMPUTER ASSISTANCE IN RESOLVING POTENTIAL CONFLICTS WHEN LOSS OF RADAR SEPERATION MINIMA IS ABOUT TO OCCUR. USING INFO FROM THE CA FUNCTION THAT A VIOLATION OF SEPERATION MINIMA IS ABOUT TO OCCUR, THE FUNCTION WILL MAKE USE OF FLIGHT PLAN DATA AND TRACKING INFO TO PRESENT TO THE CONTROLLER A SUGGESTED RESOLUTION TO AVOID THE POTENTIAL CONFLICT WITHOUT CREATING ANOTHER.

12. MILESTONES:

TYPE INDICATOR	DESCRIPTION	CURP DATE
*C	CONFLICT RESOLUTION RFP COMPLETED	6/81
*C	TECH EVAL OF CONFL RES PROPOSALS COMPLETE	10/81
*C	COMPLETE NEGOTIATIONS WITH CONTRACTOR (CONFL RES)	12/81
*C	C/R CONTRACTUAL ACTION FOR SOFTWARE CONF	6/82
*C S	C/R CONFLICT RES ADVISORY TDP COMPLETE (E/I)	12/84

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 122-112-050 2. START DATE: 7/76 3. REVISION NUMBER: 6
 4. TITLE: EN ROUTE METERING 5. MANAGER: MICHAEL DELTMAN
 6. ORGANIZATION: ARD-110 7. TELEPHONE NUMBER: 262-426-9372
 9. REQUIREMENT: FAA-EL-12-28
 10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 FAATC
 ARD-140 (ROBERT ERWIN)

AGREEMENT NUMBER:
 TTD RD-140

11. SPECIFIC OBJECTIVES:

PROVIDE CONTROLLER ADVISORIES TO ABSORB DELAYS IN A FUEL CONSERVATIVE MANNER. THE PRIMARY OBJECTIVE OF THE EN ROUTE METERING FUNCTION IS TO ORGANIZE THE TRAFFIC AT HIGHER ALTITUDES IN THE EN ROUTE AIRSPACE SUCH THAT CONGESTION AND DELAYS IN THE TERMINAL AREA WILL BE KEPT TO A MINIMUM.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURR DATE
W		F/R METERING PRELIMINARY TDS COMPLETE	11/80
F		AAT-500 DELIVERS A3D2.12A COMPOOL TO ARD-100	5/81
B		AAT-500 DELIVERS BASELINED A3D2.12 SYS TO ARD-100	6/81
W		E/R METERING Q/A TESTING COMPLETE	3/82
WC	S	E/R METERING TDP COMPLETE (E/I)	8/82
W	Z	ENROUTE METERING INTERFACE W/TERMINALS/FLOW MGMT	4/84

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 122-112-080 2. START DATE: 9/81 3. REVISION NUMBER: 0
 4. TITLE: ADVANCED ENROUTE TRACKER 5. MANAGER: JAMES SPANNON
 6. ORGANIZATION: ARD-110 7. TELEPHONE NUMBER: 202-426-0960
 9. REQUIREMENT: FAA ED-12-28

10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 DOT/FAA/TC

AGREEMENT NUMBER:

11. SPECIFIC OBJECTIVES:

TO PREPARE A TRACKER WHICH WILL SUPPORT THE FOLLOWING FUNCTIONS: (1) PRESENTATION OF VELOCITY VECTORS TO CONTROLLERS AND (2) ALERT/RESOLUTION. IT IS TO BE COMPATIBLE WITH SENSORS AND COMPUTER CAPACITY AVAILABLE IN THE TIME FRAME 1988-2008.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURR DATE
M	N	HORIZONTAL TRACKING DRAFT REPORT COMPLETED	6/82
M	N	DISTRIBUTION OF HORIZONTAL TRACKING REPORT	12/82
M	N	TR ISSUED	3/83
M	N	FINAL REPORT-VERTICAL/HORIZONTAL TRACKING	6/83
M	N	CONTRACT AWARD	9/83
M	N	DIST OF FINAL REPORT-VERTICAL/HORIZONTAL TRACKER	12/83
M	Z	ADVANCE EN ROUTE TRACKER SOFTWARE	3/84
M	N	TEST COMPLETE	3/85
M	N	FUNCTIONAL SPECIFICATION COMPLETE (EI)	9/85

RESEARCH AND TECHNOLOGY
TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

CT NUMBER: 122-112-090

2. START DATE: 0/00

3. REVISION NUMBER: 0

: OFFLOAD 9020 SOFTWARE TO ETAPS

5. MANAGER: BRIAN ANDREWS

IZATION: ARD-110

7. TELEPHONE NUMBER: 202-426-9340

EMENT:

CREATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:

AGREEMENT NUMBER:

FIG OBJECTIVES:

TONES:

TYPE	INDICATOR	DESCRIPTION	CUPR
	H	Z	DATE
			3/86

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 122-113-010 2. START DATE: 4/74 3. REVISION NUMBER: 6
 4. TITLE: ELECTRONIC TABULAR DISPLAY SUBSYSTEM (ETABS) 5. MANAGER: BRIAN ANDREWS
 6. ORGANIZATION: ARD-110 7. TELEPHONE NUMBER: 202-426-9340
 9. REQUIREMENT: FAA-ED-12-2B AND SYS RQMT STATEMENT FOR ETABS
 10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 ARD-140
 FAATC

AGREEMENT NUMBER:
 TPD ED-140
 TPD 12-262

11. SPECIFIC OBJECTIVES:

TO DEVELOP AN ELECTRONIC TABULAR DISPLAY SUBSYSTEM THAT WILL ELIMINATE THE NEED FOR USING PAPER FLT
 PROGRESS STRIPS AND MINIMIZE REPETITIVE AND TIME CONSUMING CONTROLLER INPUT ACTIONS. THE GOAL IS
 TO IMPROVE DATA HANDLING EFFICIENCY AND ACHIEVE GAINS IN PRODUCTIVITY, SAFETY AND COST BENEFITS.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURR DATE
M		ETABS CONTRACT AWARD (ENG MODEL)	1/79
MC		ETABS HARDWARE DELIVERY TO FAATC	3/82
MC		CCC INTF OPTION TEST COMPLETE (ETABS)	6/82
M		ETABS SYSTEM T&F COMPLETE	5/83
MC S	G	ETABS TDP (SI)	9/83

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 122-113-030 2. START DATE: 4/78 3. REVISION NUMBER: 7
 4. TITLE: RADAR DISPLAY RECORDING/PLAYBACK SUBSYSTEM 5. MANAGER: MICHAEL DELINAN
 6. ORGANIZATION: APD-110 7. TRF LINE NUMBER: 202-426-9372
 9. REQUIREMENT: FAA-FD-12-28

10. PARTICIPATING DOD/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 FAATC, ACT-230 (P. GUSTAFSON)

AGREEMENT NUMBER:
 TRF 12-226

11. SPECIFIC OBJECTIVES:

A DIGITAL RECORDING SUBSYSTEM WILL BE DESIGNED, FABRICATED, TESTED AND EVALUATED BY FAATC TO PERMIT THE RECORDING AND PLAYBACK OF ALL DATA TRANSMITTED TO ALL PVD CONSOLES. FAATC WILL DEVELOP, FABRICATE, TEST AND EVALUATE AN ENGINEERING MODEL AND DEVELOP PRODUCTION SPECIFICATIONS AND FINAL DESIGN DATA.

12. MILESTONES:

TYPE INDICATOR	DESCRIPTION	CURR DATE
MC S	RADAR DISP RECORD/PLAYBACK SUBSYS TDP (E, I)	4/80
A	FINAL REPORT (RADAR DISP RECORD/PLAY SUBSYS) (ET)	1/82

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 122-113-06C 2. START DATE: 5/80 3. REVISION NUMBER: 0
 4. TITLE: ETABS DISPLAY RECORDING/PLAYBACK STUDY 5. MANAGER: BRIAN ANDREWS
 6. ORGANIZATION: ARD-110 7. TELEPHONE NUMBER: 202-426-9340
 9. REQUIREMENT: 9550 AAT 100-80-45
 10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 ACT-230, P. GUSTAFSON

AGREEMENT NUMBER:
 TPD 12-226

11. SPECIFIC OBJECTIVES:

FAA TECHNICAL CENTER WILL PRODUCE A STUDY AND ANALYSIS OF THE INTERFACE NECESSARY TO RECORD ETABS DATA ON THE EN ROUTE PVD RECORDING SYSTEM. THE STUDY WILL INCLUDE COST ESTIMATES, REQUIRED HARDWARE AND IMPACT ON THE EN ROUTE RECORDING SYSTEM. STUDY WILL INCLUDE ANALYSIS OF HARD COPY PRINTOUT OF RECORDED ETABS DATA DURING PLAYBACK. ALTERNATE RECORDING TECHNIQUES WILL BE INVESTIGATED IF RECORDING ON EN ROUTE SYSTEM IS NOT FEASIBLE OR COST EFFECTIVE.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CUPR
			DATE
		STUDY & ANAL COMPLETE (ETABS DISP REC/PLAY) (EI)	1/83
		9550 FINAL REPORT (AAT 100-80-45) (EI)	1/83

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 122-113-070 2. START DATE: 1/81 3. REVISION NUMBER: 0
 4. TITLE: SELF-POWERED ALPHANUMERIC READOUT (SPARE) 5. MANAGER: ALAN J. KOPALA
 6. ORGANIZATION: AND-110 7. TELEPHONE NUMBER: 202-426-0960
 9. REQUIREMENT: SYSTEMS REQUIREMENT STATEMENT FOR ETABS, CDDER 1812.1
 10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 MITRE

AGREEMENT NUMBER:
 FY-81 105

11. SPECIFIC OBJECTIVES:

TO DETERMINE ROUTES FOR DEVELOPING SELF-POWERED ALPHANUMERIC READOUT (SPARE) AS A BATTERY-OPERATED BACK-UP DISPLAY FOR ETABS ENG> MODEL> SPARE WILL PROVIDE AUXILIARY DISPLAY OF FLIGHT PROGRESS DATA IN EVENT OF ETABS FAILURE FROM CRITICAL POWER OUTAGE> A HARDWARE/SOFTWARE MODEL OF SPARE WILL BE DESIGNED & DEVELOPED FOR INTEGRATION INTO ETABS ENG. MODEL FOR T&E. THE SPARE HW/SW SPEC CHANGES TO ETABS WILL BE PREPARED AND SUBMITTED TO AAF AS A FINAL TECH DATA PACKAGE.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CUEB DATE
PC		FAA PRELIM DESIGN REVIEW AND APPROVAL	1/82
M		HARDWARE PROCUREMENT BY MITRE	2/82
PC		IMPLEMENTATION OF ENR. MODEL AT SDI	5/82
PC	N	SPARE/ETABS INTEGRATION AT TECH CENTER	6/82
M	N	SPARE/ETABS T&E AT TECH CENTER	3/83
MC		SUBMISSION OF SPARE DOC FOR ETABS TDP (E1)	9/83

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 122-113-080 2. START DATE: 5/81 3. REVISION NUMBER: 0
 4. TITLE: RECTANGULAR ENROUTE AREA DISPLAY FOR SECTOR SUITE DEVELOPMENT 5. MANAGER: ALAN J. KOPALA
 6. ORGANIZATION: ARD-1.0 7. TELEPHONE NUMBER: 202-426-0960
 9. REQUIREMENT: ENROUTE PROGRAM PLAN FAA-PD-12-2P
 10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 MITRE

AGREEMENT NUMBER:
 FY-81 TOS

11. SPECIFIC OBJECTIVES:

AN ENGINEERING MODEL OF A RECTANGULAR ENROUTE AREA DISPLAY WILL BE PURCHASED BY MITRE AND INTEGRATED INTO THE SECTOR SUITE LABORATORY. THIS DISPLAY IS A 17 X 17 INCH FLAT PLASMA PANEL WITH A TOUCH ENTRY CAPABILITY. IT WILL BE USED TO EVALUATE THREE POTENTIAL APPLICATIONS RELATED TO SECTOR SUITE DEVELOPMENT: 1) REPLACEMENT OF THE CRT IN THE ETABS INPUT DEVICE AND EVALUATION OF ITS CAPABILITY TO MAINTAIN CRITICAL DATA IN THE EVENT OF A POWER OUTAGE 2) REPLACEMENT OF CRT'S IN ETABS TABULAR DISPLAYS 3) ACCEPTABILITY AS A BACK-UP TO THE PLAN VIEW DISPLAY.

12. MILESTONES:

TYPE INDICATOR	DESCRIPTION	CURR DATE
IC	INSTALLATION OF HARDWARE AT SDI	8/81
MC	INTEGRATION OF SOFTWARE/HARDWARE - ETABS VERSION	6/82
MC	SUBMISSION OF INTERIM REPORT (ETABS)	8/82
VC	INTEGRATION OF SOFTWARE/HARDWARE PVD VERSION	10/82
VC	SUBMISSION OF FINAL REPORT (FI)	2/83

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 122-114-010 2. START DATE: 6/77 3. REVISION NUMBER: 4
 4. TITLE: HARDWARE MEASUREMENT AND ANALYSIS 5. MANAGER: JAMES SHANNON
 6. ORGANIZATION: AED-110 7. TELEPHONE NUMBER: 202-426-0960
 9. REQUIREMENT: FAA-ED-12-2B, 9550 AAT 500-22, INCREASE ALLOWABLE PDE SITES FOR NAS
 10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 AED-140 (L. MC CLELLAN)

AGREEMENT NUMBER:
 TPD ED-140

11. SPECIFIC OBJECTIVES:

MEASURE AND EVALUATE THE PERFORMANCE OF EN ROUTE HARDWARE AND SOFTWARE DEVELOPMENT EFFORTS TO ASSESS THEIR COMPUTER RESOURCE REQUIREMENTS AS A FUNCTION OF NEW AUTOMATION ENHANCEMENTS AND THE ATC ROLE.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURR DATE
MC	N	9550 COMPLETION REPORT (AAT 500-22)	11/81
H		CCC/ETABS MEASUREMENT PLAN (SPA'S) COMPLETED	2/82

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 122-114-030 2. START DATE: 10/77 3. REVISION NUMBER: 3
 4. TITLE: SYSTEM PERFORMANCE EVALUATION 5. MANAGER: ALAN J. KOPALA
 6. ORGANIZATION: ARD-110 7. TELEPHONE NUMBER: 202-426-0960
 9. REQUIREMENT: FAA-ED-12-28

10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 FAATC, ACT-230
 TSC

AGREEMENT NUMBER:
 TED 12-282
 FFA FA-168

11. SPECIFIC OBJECTIVES:

TO ASSESS THE RELATIVE IMPROVEMENTS IN THE PERFORMANCE OF OPERATIONAL ATC SYSTEMS DUE TO THE ADDITION OF NEW SOFTWARE AND HARDWARE DEVELOPMENTS AND ENHANCEMENTS. THIS SYSTEM PERFORMANCE DATA WILL CONTRIBUTE TO THE INFORMATION CURRENTLY AVAILABLE FOR MAKING DECISIONS TO IMPLEMENT ENHANCEMENTS IN THE OPERATIONAL ATC SYSTEM F.G., THE ELECTRONIC TABULAR DISPLAY SUBSYSTEM (ETABS).

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURR DATE
T		ETABS PILOT STUDY WORKLOAD-PERF LISTINGS DELIVERED	6/81
T		INITIAL A/C CONFLICTS-SOFTWARE TEST & LISTING DEL	6/81

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 122-114-040 2. START DATE: 10/77 3. REVISION NUMBER: 3
 4. TITLE: CONTROLLER PERFORMANCE MEASUREMENT 5. MANAGER: ALAN J. KOFALA
 6. ORGANIZATION: ARD-110 7. TELEPHONE NUMBER: 202-426-0960
 9. REQUIREMENT: FAA-ED-12-2B
 10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 TSC (DTS-537)
 FAATC (ACT-230)

AGREEMENT NUMBER:
 PPA FA-068

11. SPECIFIC OBJECTIVES:

TO ASSESS THE RELATIVE IMPROVEMENT IN THE PERFORMANCE OF THE AIR TRAFFIC CONTROLLER DUE TO THE ADDITION OF NEW SOFTWARE AND HARDWARE DEVELOPMENTS AND ENHANCEMENTS. THIS CONTROLLER PERFORMANCE DATA WILL CONTRIBUTE TO THE INFORMATION CURRENTLY AVAILABLE FOR MAKING IMPLEMENTATION DECISIONS TO IMPROVE ENHANCEMENTS IN THE OPERATIONAL ATC SYSTEM.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CONF
		PILOT STUDY TEST PLAN COMPLETE (SRI)	DATE 1/82
		ETABS T&E (SRI) COMPLETED	4/83
	T	FINAL RPT SYS & CONTROLLER WORKLN/PERF COMPL (E1)	12/83

 RESEARCH AND TECHNOLOGY

TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 122-115-010 2. START DATE: 7/76 3. REVISION NUMBER: 9
 4. TITLE: DABS PROCESSING IN THE ENROUTE SYSTEM 5. MANAGER: MICHAEL DELIMAN
 6. ORGANIZATION: ARD-110 7. TELEPHONE NUMBER: 202-426-9372
 9. REQUIREMENT: FAA-EP-12-23 AND DABS PROGRAM PLAN
 10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 ASD-140 (LUTHER MC CLELLAN)
 FAATC (LOU BCNA)

AGREEMENT NUMBER:
 TID RD-140
 TPD 03-110

11. SPECIFIC OBJECTIVES:

WORKS WILL BE ACCOM. IN 2 SEQUEN. DEV. ACTIVITIES, SCHEDULED TO PERMIT TESTING PRIOR TO HANDOFF TO
 AAF OF A TDP FOR THE DABS SENSOR. BUILD I PROVIDES FOR TRACKING & DISPLAY OF DABS SURV. DATA &
 COMM. WITH THE DABS SENSORS THRU THE FRONT END PROCESSOR. BUILD II ADDS SEVERAL FUNCTIONAL
 ENHANCEMENTS TO BUILD I, INCLUDING USE OF THE DABS DATA LINK FOR ATC MESSAGES.

12. MILESTONES:

TYPE	DESCRIPTION	CDR
INDICATOR		DATE
MC	OPER SERVICES' RQMTS DEFINED (DABS PROC IN E/R)	10/80
"	CONTRACTUAL ACTION	2/81
M	DABS/ATC TECHNICAL TEST REPORT	3/82
MC SI	ENROUTE SOFTWARE TDP (DABS PROC) (E/I)-ISSUE # 202	1/83

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 122-115-040 2. START DATE: 10/78 3. REVISION NUMBER: 1
 4. TITLE: ETABS SOFTWARE INTERFACE DEVELOPMENT 5. MANAGER: MICHAEL DELINAW
 6. ORGANIZATION: ARD-110 7. TELEPHONE NUMBER: 202-426-9372
 9. REQUIREMENT: FAA-FF-12-28
 10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 ARD-140 (JOHN FICKLER)

AGREEMENT NUMBER:
 TFD RD-140

11. SPECIFIC OBJECTIVES:

THIS EFFORT PROVIDES FOR DEVELOPMENT OF SOFTWARE WHICH WILL TEST THE INTERFACE BETWEEN THE ETABS EQUIPMENT AND THE FAATC SSF. TESTING RESULTS WILL BE USED TO DEVELOP A SPECIFICATION FOR NAS EN ROUTE SOFTWARE CHANGES WHICH WILL BE REQUIRED FOR THE NATIONAL IMPLEMENTATION OF ETABS.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CUPP	DATE
M		QUALITY ASSURANCE TESTING COMPLETE		6/81
M		QUALITY ASSURANCE TEST REPORT COMPLETED		10/81
M	N	BEGIN INTERFACE TESTING		3/82
M	N	INTERFACE TESTING COMPLETE		4/82
M		CPFS CHANGE PAGES FOR ETABS/NAS DELIVERED (EY)		9/83

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 124-111-010 2. START DATE: 10/80 3. REVISION NUMBER: 0
 4. TITLE: HUMAN FACTOR ANALYSIS OF SECTOR CONTROL SUITE 5. MANAGER: K. GRAY
 6. ORGANIZATION: ARD-110 7. TELEPHONE NUMBER: 202-426-0960
 9. REQUIREMENT: 9550, AAT-100-47, ENROUTE SECTOR CONFIGURATION
 10. PARTICIPATING DGT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 FAA TECHNICAL CENTER

AGREEMENT NUMBER:
 TPD 12-282

11. SPECIFIC OBJECTIVES:

A HUMAN FACTOR STUDY HAS BEEN INITIATED TO IDENTIFY ALTERNATIVE ARRANGEMENTS OF THE VARIOUS TYPES OF DISPLAYS NEEDED AT THE E/P CONTROL SECTORS. THE OBJECT. WILL BE TO DERIVE, THRU ANAL. OF THE VARIOUS PROPOSED CONFIG. AN OPTIMUM SECTOR ARRANGEMENT WITH EMPHASIS ON CONTROLLER VISIBILITY OF DATA, SEATING ADEQUANCY, & ACCESSIBILITY OF INPUT/OUTPUT DEVICES. FULL SIZE MOCKUPS ARE REQUIRED. FOR ADEQUATE DEMO. & EVAL & ARRANGEMENTS WILL BE NEEDED TO PROVIDE ASSESSMENTS BY FIELD CONTROLLERS OF THE ALTERNATIVE CONFIGURATIONS PROPOSED. RESULTS OF THE ANAL WILL BE USED TO ASSIST IN THE FORMULATION OF DESI

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURR DATE
		MOCK-UP CONFIGURATION DEFINITION COMPLETE	11/80
MC	N	MANAGEMENT DEMONSTRATION COMPLETE	8/81
	N	CONTROLLER ASSESSMENTS	12/81
	N	ANALYSIS AND REPORT (DRAFT)	2/82
	N	FINAL DRAFT REPORT	5/82
PC		9550 COMPLETION REPORT (AAT 100-47) (EJ)	6/82

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 131-401-060 2. START DATE: 7/77 3. REVISION NUMBER:
 4. TITLE: COFS WEATHER SATELLITE PRODUCT EVALUATION 5. MANAGER: E. VAN VLAANDESEN
 6. ORGANIZATION: ARD-430 7. TELEPHONE NUMBER: 202-426-9357
 9. EQUIPMENT: AAT-1 LTR. 1/21/77; ARD/ACT LTR. 4/29/77; 955 (AAT-100-52) 9/80
 10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 TEC. CENTER ACT-250
 AAT-140

AGREEMENT NUMBER:
 NPL 13-251/131-401-060
 9550 (AAT-100-52)

11. SPECIFIC OBJECTIVES:

TO EVALUATE AND DEMONSTRATE METHODS OF DISTRIBUTION AND DISPLAY OF SATELLITE IMAGERY PRODUCTS IN THE FLIGHT SERVICE STATION (FSS) OPERATIONAL ENVIRONMENT, AS WELL AS DEMONSTRATE AND ASSES PRODUCT ENHANCEMENTS FOR POSSIBLE INCLUSION IN THE SYSTEM.
 FOR MODEL 2 AFAS.

 REQUESTED. WILL DELAY COMPLETION OF FIELD EVALUATION AND REPORT 2 MONTHS. ADDITIONAL TEST SITE (SEATTLE, WASH.)

12. MILESTONES:

TYPE INDICATOR	DESCRIPTION	CURR DATE
N	COMPLETE SPECIALIST FIELD TEST/EVAL. PHASE II SYS.	7/81
N	FINAL RPT. PHASES I & II	11/81

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 131-401-070 2. START DATE: 10/79 3. REVISION NUMBER: 2
 4. TITLE: NAFEC VOICE RECOGNITION SYSTEM (URD) 5. MANAGER: F. VAN VLAANDEREN
 6. ORGANIZATION: ARD-432 7. TELEPHONE NUMBER: 202-426-9357
 9. REQUIREMENT: FSS MASTER PLAN 1/78

10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 FAA TECH CENTER ACT-250

AGREEMENT NUMBER:
 NPD 13-265/131-401-835

11. SPECIFIC OBJECTIVES:

EVALUATION OF TELEPHONE VOICE RECOGNITION FOR FSS FLIGHT PLAN FILING AND BRIEFING. TEST AND
 EVALUATION OF PILOT SELF BRIEFING AND DIRECT (AUTOMATIC) FLIGHT PLAN FILING FOR FSS AUTOMATION MODEL
 3 PROGRAM. FSS LABORATORY DEMONSTRATION AND REPORT.

12. MILESTONES:

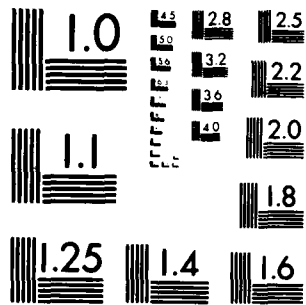
TYPE	INDICATOR	DESCRIPTION	CURR DATE
M	M	FINAL REPT.-EXPANDED VOCAB. WITH FLT. PLN. FILE	6/81

AD-A112 922 FEDERAL AVIATION ADMINISTRATION WASHINGTON DC SYSTEM--ETC F/G 1/5
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NATIONAL BUREAU OF STANDARDS-1963-A

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 132-402-010 2. START DATE: 1/79 3. REVISION NUMBER: 0
 4. TITLE: FLIGHT SERVICE AUTOMATION SYSTEM ACQUISITION 5. MANAGER: V. COSTANTINO
 6. ORGANIZATION: ARD-43C 7. TELEPHONE NUMBER: 202-426-9357
 9. REQUIREMENT: CST/FAA STUDY 12/74; FSAS MASTER PLAN 01/78
 10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:

AGREEMENT NUMBER:

11. SPECIFIC OBJECTIVES:

DELIVER FSAS MODEL 1 TO A FIELD SITE BY 5/82
 SITE BY 8/83

DELIVER FSAS MODEL 2 TO A FIELD

12. MILESTONES:

TYPE INDICATOR	DESCRIPTION	CUPR DATE
	DESIGN VERIFICATION CONTRACT AWARD	1/80
MC	FSAS DESIGN VERIFICATION COMPLETE	1/81
MC S G	FSAS PRODUCTION CONTRACT AWARD	9/81
MC	FSAS MODEL 1 HARDWARE DELIVERY (TECH CTR)	7/82
MC	FSAS MODEL 1 FIRST OPR SITE HARDWARE DELIVERY	8/82
	MODEL 3 CONTRACT AWARD	12/82
MC	FSAS MODEL 2 HARDWARE DELIVERY TECH CTR	8/83
MC	FSAS MODEL 2 FIRST OPR SITE HARDWARE DELIVERY	11/83
M	FSAS MODEL 3 HARDWARE DELIVERY TO TECH CENTER	10/85

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 132-402-070 2. START DATE: 9/80 3. REVISION NUMBER: 1
 4. TITLE: FSS MODERNIZATION AND BUILDING PROGRAM SUPPORT 5. MANAGER: E. VAN VLAANDEREN
 6. ORGANIZATION: ARD-430 7. TELEPHONE NUMBER: 202-426-9357
 8. REQUIREMENT: FSS MASTER PLAN 1/78
 10. PARTICIPATING DOD/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:
 ORGANIZATION NAME: AGREEMENT NUMBER:
 ACT-250 TRD-13-251/132-402-207

11. STAFF OBJECTIVES:

REFINE SUPPORT PRO. FOR THE CONSOLIDATION OF 61 AUTOMATED FLIGHTSERVICE STATIONS. EVALUATE AND
 REFINE OPERATIONAL AND ENVIRON- MENTAL REQ'TS. PROVIDE PROGRAM OFFICE AND REGIONAL COORDINATION ON
 A NATIONAL SYSTEM PLANNING LEVEL.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURR DATE
M	N	OPERATIONS/SYSTEM ENVIR. LAB MOCKUP	8/81
M	N	LETTER RPT.	10/81
M	N	TECH DATA AND ANALYSIS RPT - FSS MODERN/BLDG	5/82

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 132-402-080 2. START DATE: 9/81 3. REVISION NUMBER: 81
 4. TITLE: FSA SPECIALIST/AUTOMATION INTERFACES 5. MANAGER: E. VAN VLAANDEFFEN
 6. ORGANIZATION: ARD-430 7. TELEPHONE NUMBER: 202-426-9357
 9. REQUIREMENT: FSS MASTER PLAN-1/78
 10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 ACT-250

AGREEMENT NUMBER:
 TRP 13-251/132-402-206

11. SPECIFIC OBJECTIVES:

ESTABLISH OPERATIONAL PROCEDURES AND TECHNICAL SOLUTIONS FOR THE EVALUATION OF MODEL 3 SYSTEM AND
 SPECIALIST AUTOMATION INTER- ACTION WITH PILOT SELF SERVICES. PROVIDE RESOURCES ,BOTH ACT-250 AND
 REGIONAL TO SUPPORT SYSTEM SIMULATION WITHIN A LABORATORY ENVIRONMENT.

12. MILESTONES:

TYPE INDICATOR	DESCRIPTION
P P P	FINAL SYSTEM OPT - FCS SPEC/AUTO INTERFACE

CORR
 DATE
 2/83

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 132-402-090 2. START DATE: 9/80 3. REVISION NUMBER: 1
 4. TITLE: FSS MODEL 2 SPECIALIST CONSOLE 5. MANAGER: E. VAN VLAANDEREN
 6. ORGANIZATION: ART-430 7. TELEPHONE NUMBER: 202-426-9357
 9. REQUIREMENT: FSS MASTER PLAN 1/78
 10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 ACT-250

AGREEMENT NUMBER:
 TFD 13-257/132-402-209

11. SPECIFIC OBJECTIVES:

DEFINE THE SUPPORT REQUIREMENTS FOR THE EVALUATION OF THE PERFORMANCE OF THE FSS STANDARD CONSOLE.
 INCLUDES EVAL. OF CONSOLE SIZE AND SHAPE, AND THE LAYOUT AND LOCATION OF CONSOLE EQUIP. SUCH AS
 CRT'S.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION
	N	DRAFT LETTER REPORT

CORE	DATE
	10/81

RESEARCH AND TECHNOLOGY
TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 132-402-270

2. START DATE: 0/00

3. REVISION NUMBER: 0

4. TITLE:

5. MANAGER:

6. ORGANIZATION:

7. TELEPHONE NUMBER:

9. REQUIREMENT:

10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:

AGREEMENT NUMBER:

11. SPECIFIC OBJECTIVES:

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION
	"	TEST AND EVAL OF MODEL 2 SPECS.

CURR
DATE
9/81

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

EFFORT DATE: 3/08/82

1. PROJECT NUMBER: 132-402-280 2. START DATE: 9/79 3. REVISION NUMBER: 1
 4. TITLE: DATA BASE FOR FSAS MODEL 1 AND 2 SYSTEMS 5. MANAGER: C. WEIGEL
 6. ORGANIZATION: ARD-432 7. TELEPHONE NUMBER: 202-426-9357
 9. ENVIRONMENT: FSS MATTER PLAN 1/78
 10. PARTICIPATING IOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 ACT-250

AGREEMENT NUMBER:
 13-251/132-402-284

11. SPECIFIC OBJECTIVES:

PROVIDE OPERATIONAL DATA BASES FOR THE MODEL 1.2 AND MODEL 2 SYSTEMS.
 IDENTIFICATION, COLLECTION, COMPILATION, AND DOCUMENTATION OF THE DATA BASES. PROVIDE TECHNICAL
 ASSISTANCE AND GUIDANCE FOR THE FSAS SYSTEM BY PARTICIPATING IN THE TECHNICAL EVALUATION TEAM (TET) AS
 A VOTING TEAM MEMBER (S). PROVIDE ADDITIONAL DATA BASE FOR
 MODEL 2 (12/81)

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	DATE
MC	N	MODEL 1.2 AND 2 SYSTEMS DATA BASE DOCUMENTATION	10/81
N	N	PROVIDE ADDITIONAL MODEL 2 DATA BASE DOCUMENTATION	12/81

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 132-403-010 2. START DATE: 8/75 3. REVISION NUMBER: 6
 4. TITLE: DEVELOPMENT, TEST & SPECIFICATION OF FSS DIRECT USER ACCESS CAPABIL 5. MANAGER: CMDR. P. B. BLUM
 6. ORGANIZATION: AFD-432 7. TELEPHONE NUMBER: 202-426-9357
 9. REQUIREMENT: OST/FAA TUDY, 12/74; FSS MASTER PLAN, 1/78
 10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 DDC
 WITCO

AGREEMENT NUMBER:
 PPA 031
 TOS 80-V

11. SPECIFIC OBJECTIVES:

(1) DEVELOP NEW DIRECT USER ACCESS (DUA) CONCEPTS FOR TEST, EVAL & SPEC; (2) DEVELOP & INTEGRATE DUA FEATURES IN MD 2 & MD 3 SYST; (3) DEVELOP AND INTEGRATE DUA FEATURES IN MODEL 2; (4) SUPPORT DUA PRODUCTION AND IMPLEMENTATION ACTIVITY. DUA DEVELOPMENT SUPPORTS THE LONG-TERM FSS PROGRAM GOALS OF ADDING EXPANDED CAPABILITY TO THE FSS AUTOMATION SYSTEM SO THAT CAPACITY CAN BE INCREASED.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURR DATE
R	T	AUTOMATED FLIGHT PLAN FILING EVALUATION START	
MC	T	FLT PLN FILING/PSB CAPABIL. DEMONSTRATION CANCEL	
C		COLUMBUS VHS EVALUATION COMPLETED	3/80
R		VOICE RESPONSE TECH DATA PACKAGE	9/80
R	E	PRODUCTION CONTRACT MODEL 3	12/83
R	Z	MONITOR ADD 1 ENHANCEMENT TO MODEL 3	6/84
MC		IMPLEMENTATION-ENHANCE PACKAGE #1 (DIR USER ACCT)	12/84
R	P	MONITOR MODEL 3 IMPLEMENTATION (1ST OPNL SITE)	8/86

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/06/82

1. PROJECT NUMBER: 132-410-030 2. START DATE: 10/80 3. REVISION NUMBER: 0
 4. TITLE: EXPERIMENTAL AUTOMATED ROUTE FORECAST EVALUATION (ARF)
 5. MANAGER: FRANK HELEWICZ
 6. ORGANIZATION: ARD-410 7. TELEPHONE NUMBER: 202-426-8427
 9. REQUIREMENT: FSS MASTER PLAN
 10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 ARD-410
 MITRE

AGREEMENT NUMBER:

11. SPECIFIC OBJECTIVES:

PROVIDE AN OPERATIONAL EVALUATION OF THE AVIATION ROUTE FORECAST (ARF) CONCEPT WITH ACTIVE PILOTS.
 PRODUCTS: DEMONSTRATION AND TEST OF THE AUTOMATED AVIATION ROUTE
 FORECAST SYSTEM REPORT. REQUIREMENT SPECIFICATION PRODUCED FOR INCLUSION IN FSS AUTOMATION PROGRAM.
 IMPLEMENTATION PLAN.

12. MILESTONES:

TYPE INDICATOR	DESCRIPTION	CUMR DATE
	IMPLEMENTATION PLAN	4/83
	SPEC FOR MODIFICATION TO FSS AUTOMATION PROGRAM	10/83
MC	FINAL REPORT - NATIONWIDE ARF IMPLEMENTATION	10/86

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 142-122-010
 2. START DATE: 10/77
 3. REVISION NUMBER: 4
 4. TITLE: DEVELOPMENT SUPPORT (ARD-140)
 5. MANAGER: JOHN MORROCKS
 6. ORGANIZATION: ARD-120
 7. TELEPHONE NUMBER: 202-426-1336
 8. REQUIREMENT: PROGRAM PLAN FAA-ED-14-2A

10. PARTICIPATING GOVT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 ARD-140

AGREEMENT NUMBER:
 TIT RD-140

11. SPECIFIC OBJECTIVES:

ARD-140 WILL PREPARE SPECIAL PACKAGES, PERFORM DOCUMENTATION REVIEW AND CONDUCT VERIFICATION TESTS OF SOFTWARE IN SUPPORT OF THE TERMINAL PROGRAM.

12. MILESTONES:

TIME INDICATOR	DESCRIPTION	CUSE DATE
"	CONFLICT ALERT DESIGN VERIFICATION (EI)	4/81
"	CONFLICT ALERT DESIGN REPORT	2/82
XC	9550 FINAL REPORT ON SRAP (AAF 380-82-1) (EI)	7/82

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 142-121-010 2. START DATE: 7/75 3. REVISION NUMBER: 4
 4. TITLE: PROGRAM PLANNING AND SYSTEM ENGINEERING (MITRE) 5. MANAGER: D. COONE
 6. ORGANIZATION: ASD-120 7. TELEPHONE NUMBER: 202-426-9334
 8. REQUIREMENT: TECHNICAL PROGRAM PLAN FAA-ED-14-2A
 10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 MITRE

AGREEMENT NUMBER:
 FY-61 TCS

11. SPECIFIC OBJECTIVES:

SPDS, WITH CONTRACTOR (MITRE) WILL PREPARE REQUIRED ANALYSES, DESIGN STUDIES, TEST PLANS, ENGINEERING REQUIREMENTS AND SYSTEM TEST REPORTS.

12. MILESTONES:

TYPE INDICATOR	DESCRIPTION	CURR DATE
I	BBX/ATC INTERFACE SPECIFICATION ARTS III/NADIN/TIDS COMM RIGHTS DOC-(ISSUE # 905)	2/81 8/82

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 142-171-050 2. START DATE: 10/77 3. REVISION NUMBER: 3
 4. TITLE: FULL DIGITAL ARTS DISPLAY (FDAD) DEVELOPMENT 5. MANAGER: RICHARD SIMON
 6. EXAMINATION: ART-120 7. TELEPHONE NUMBER: 202-426-9342
 8. REQUIREMENTS: TECHNICAL PROGRAM PLAN, FAA-ED-14-2A
 10. PARTICIPATING LOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 FAATC

AGREEMENT NUMBER:
 TPD14-211

11. SPECIAL OBJECTIVES:

TO DEVELOP A DISPLAY WHICH IS REPRESENTATIVE OF THE STATE-OF-THE-ART IN PERFORMANCE, FLEXIBILITY, WEIGHT, POWER CONSUMPTION, MAINTAINABILITY AND RELIABILITY. THE RCD MODELS WILL BE EVALUATED TO VALIDATE REQUIREMENTS TO BE INCLUDED IN A TECHNICAL DATA PACKAGE TO ENABLE SPECIFICATION OF A REPLACEMENT FOR THE ARTS III DISPLAYS, WHICH ARE APPROACHING OBSOLESCECE.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURR DATE
MC		FDAD DISPLAYS DELIVERED TO FAATC	6/81
N		9550 FINAL REPORT-SRAP INRP (AAF 380-80-05)	8/81
N		FAATC EVALUATION REPORT	3/82
MC		FDAD TDP DELIVERED (EI)	4/82
N	2	FDAD INTEGRATED WITH ARTS-III	4/82

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 * RESEARCH AND TECHNOLOGY *
 * TECHNICAL PROGRAM DOCUMENT *
 *

REPORT DATE: 3/04/82

1. PROJECT NUMBER: 142-172-020 2. START DATE: 5/80 3. REVISION NUMBER: 0
 4. TITLE: TERMINAL SEQUENCING AND SPACING 5. MANAGER: HOLLY PARLAGE
 6. ORGANIZATION: ASD-120 7. TELEPHONE NUMBER: 202-426-1336
 8. REQUIREMENT: TECHNICAL PROGRAM PLAN FAA-ED-14-2A
 10. ADMINISTRATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 FAA TECHNICAL CENTER
 MITRE

AGREEMENT NUMBER:
 TID 14-211
 FY81 105

11. SPECIFIC OBJECTIVES:

TO DEVELOP A PRELIMINARY DESIGN FOR A TERMINAL SEQUENCING AND SPACING (TSS) AUTOMATION AID. THIS CAPABILITY WILL BE DEVELOPED UNDER CONTRACT TO THE SPERRY UNIVAC CORPORATION. IN ORDER TO SUPPORT THE DESIGN DEVELOPMENT, A DETAILED DATA COLLECTION AND ANALYSIS ACTIVITY WILL BE UNDERTAKEN AT THREE ARTS II SITES WITH A SIMULTANEOUS ANALYSIS OF ALTERNATIVES AND REQUIREMENTS FOR INTEGRATING THE TSS FUNCTION INTO THE ARTS IIIA SYSTEM. OUT OF THIS ACTIVITY WILL COME THE COMPUTER PROGRAM FUNCTIONAL SPECIFICATIONS (CPFS'S) WHICH WILL BE THE BASIS FOR THE PRELIMINARY DESIGN.

12. MILESTONES:

TYPE INDICATOR	DESCRIPTION	CUFR DATE
MC	TSS/ARTS IIIA MPE INTEGRATION ANAL RPT COMPLETE	6/81
MC N	FINAL SITE ANAL REPORT COMPL (TERM SEQ & SPACING)	11/81
S	MITRE FINAL FUNCTIONAL REQUIREMENTS DOCU COMPLETE	12/81
S N	FINAL FUNCTIONAL SIMULATION REPORT COMPLETE	2/82

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 142-173-030 2. START DATE: 11/80 3. DIVISION NUMBER: 0
 4. TITLE: TERMINAL INFORMATION DISPLAY SYSTEM (TIDS) 5. MANAGER: GARY ROWLAND
 6. ORGANIZATION: APC-120 7. TELEPHONE NUMBER: 202-426-9336
 8. REQUIREMENT: SFC LETTER DATED

10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 AAD-140
 MITRE
 TRC
 AAF AND AAT

AGREEMENT NUMBER:
 TDP RD-140
 FY-81 TOS
 PPA FA-101
 NONE

11. TECHNICAL OBJECTIVES:

TO DEVELOP THE TERMINAL INFORMATION DISPLAY SYSTEM (TIDS) FOR USE IN LARGE AND MEDIUM SIZE TRACONS AND TOWERS. THE TIDS WILL PROCESS AND DISTRIBUTE FOR DISPLAY AT VARIOUS CONTROL POSITIONS BOTH FLIGHT AND OTHER OPERATIONAL DATA IE: WEATHER NOTAMS, NAVAIR STATUS, ETC. THE SYSTEMS WILL BE TESTED AT THE FAA TECH CENTER AND AT AN OPERATIONAL FIELD FACILITY. TIDS EQUIPMENT WILL ALSO DISTRIBUTE DATA TO REMOTELY LOCATED TOWERS AND WILL BE INTERFACED WITH BOTH THE ARTCC'S AND ARTS III COMPUTER SYSTEMS. A TECHNICAL DATA PACKAGE WILL BE PREPARED FOR SYSTEM IMPLEMENTATION.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURE DATE
M		FLIGHT DATA DISPLAYS (FDD) ACCEPTED	12/81
M		FDD TEST PLANNING DOCUMENT COMPLETE	2/82
M		FDD RASTER SCAN CONVERSION MOD	5/82
M	N	CONSOLIDATED CAB DISPLAY (CCD) OPER & ENG TEST PLN	6/82
M	N	ACT CCD ACCEPTANCE TESTS COMPLETED	7/82
M	N	REPORT ON STROKE VS RASTER SCAN FOR FDD	8/82
M	N	FIELD CCD ACCEPTANCE TESTS COMPLETED	9/82
M	N	TIDS ENGINEERING ANALYSIS REPORT COMPLETED	9/82
M	N	FDD TFS: AND EVALUATION PLANS COMPLETED	10/82
M	N	FDD DRIVER SOFTWARE COMPLETED	12/82
M	N	ACT CCD OPERATIONAL EVALUATION COMPLETED	12/82
M	N	ACT CCD OPER AND ENG T&E FINAL REPORT	2/83
M	N	FIELD CCD OPERATIONAL EVALUATION	3/83
M	N	FDD TEST AND EVALUATION COMPLETED	4/83
M	N	FDD TEST AND EVALUATION REPORTS	6/83
M	N	TIDS FUNCTIONAL POINTS SPECIFICATION (E/I)	12/83

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 142-173-040 2. START DATE: 1/81 3. REVISION NUMBER: 0
 4. TITLE: CONSOLIDATED CAE DISPLAY (CCD) 5. MANAGER: LARRY WUERKER
 6. ORGANIZATION: ARD-120 7. TELEPHONE NUMBER: 202-426-9338
 9. REQUIREMENT: FAA EF 500-007 DATED MAY 17, 1979 AND AMENDMENT DATED 9/3/80
 10. PARTICIPATING GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 ACT
 ARD-140
 ALG-426

AGREEMENT NUMBER:
 TFD 14-211 (TIDS)
 TFD ED-140
 QRO AT FACTORY

11. SPECIFIC OBJECTIVES:

DEVELOP, INSTALL AND TEST TWO CONSOLIDATED CAE DISPLAYS (CCD) SYSTEMS FOR AIR TRAFFIC CONTROL TOWERS AND TRACONS. EACH SYSTEM CONSISTS OF THREE CRITICAL DISPLAYS AND THREE SUPPLEMENTAL DISPLAYS FOR THE TOWER CAB, 12 TRACON DISPLAYS, THREE SUPERVISORY MAINTENANCE DISPLAYS AND THREE AIRPORT LIGHTING CONTROL PANELS. ONE CCD SYSTEM WILL BE INSTALLED IN A FIELD FACILITY FOR OPERATIONAL EVALUATION. THE OTHER CCD SYSTEM WILL BE INSTALLED AT THE FAA TECH CENTER FOR TIDS PROGRAM ACTIVITIES.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURE DATE
NC		CONTRACT AWARD	9/80
NC	N	PRELIMINARY DESIGN REVIEW	4/81
NC	N	CRITICAL DESIGN REVIEW	8/81
N		ASSEMBLE DISPLAYS	2/82
N		PREPARE FACILITY (FIELD SITE)	5/82
N		COMPLETE ACCEPTANCE TEST - ACT SYSTEM	7/82
N		COMPLETE ACCEPTANCE TEST - FIELD SYSTEM (ACY)	9/82
N		COMPLETE OPERATIONAL EVALUATION - ACT SYSTEM	12/82
N		COMPLETE OPERATIONAL EVAL. - FIELD SYSTEM (ACY)	3/83

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/06/82

1. PROJECT NUMBER: 142-175-020 2. START DATE: 6/74 3. REVISION NUMBER: 6
4. TITLE: ARTS II ENHANCEMENT 5. MANAGER: JOHN HORROCKS
6. ORGANIZATION: ARD-120 7. TELEPHONE NUMBER: 202-426-1336
9. REQUIREMENT: FAA-ED-14-2A; AAT-1 LTR, SUBJ: ARTS II ENHAN, 11/6/78 & 9/12/80
10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:
- | | |
|-----------------------------|---------------------------------|
| ORGANIZATION NAME:
FAATC | AGREEMENT NUMBER:
TPD 14-211 |
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11. SPECIFIC OBJECTIVES:

TO DEVELOP HARDWARE AND SOFTWARE ENHANCEMENTS FOR ARTS II SYSTEMS, TO INCREASE CAPABILITY, FLEXIBILITY, RELIABILITY AND MAINTAINABILITY. A DESIGN ALTERNATIVE STUDY WILL BE COMPLETED FIRST TO DETERMINE THE BEST APPROACH. TO SUPPORT AN FY-83 IMPLEMENTATION PROGRAM, HANDOFFS WILL BE IN THE FORM OF A HARDWARE DESIGN SPECIFICATION AND SOFTWARE DESIGN DATA (INCLUDING OPERATIONAL PROGRAM CODE) TO THE OPERATING SERVICES.

12. MILESTONES:

TYPE INDICATOR	DESCRIPTION	CURR DATE
MC	CONTRACT AWARD FOR PHASE II (ARTS II ENH)	
MC	COMSIS CONTRACT AWARD	5/81
MC N	T&E PLAN COMPLETED	4/82
MC	EQUIPMENT DELIVERY TO FAATC (ARTS II ENH)	3/83
MC N	T&E FINAL REPORT COMPLETED	12/83
MC S	ARTS-II ENH OPNL SOFTWARE DELIVERED TO ATF (E/I)	4/84

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 142-176-010 2. START DATE: 6/75 3. REVISION NUMBER: 7
 4. TITLE: AETS IIIA ALL DIGITAL SYSTEM (ADS) INTERFACE WITH DABS 5. MANAGER: HOLLY BARLAGE
 6. ORGANIZATION: AFD-120 7. TELEPHONE NUMBER: 202-426-1336
 8. REQUIREMENT: TECHNICAL PROGRAM PLAN FAA-ED-14-2A
 10. PARTICIPATING GOVT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 FAATC

AGREEMENT NUMBER:
 TID 03-110

11. TECHNICAL OBJECTIVES:

DEVELOP OF (1) TERMINAL INTERFACE VERIFICATION SOFTWARE; (2) SURVEILLANCE SOFTWARE FOR PROCESSING
 INPUTS FROM THE ATCSF AND DABS (3) COMMUNICATIONS SOFTWARE FOR PROCESSING ALL SURVEILLANCE RELATED
 COMM. MESSAGES FROM DABS. THIS APPROACH IS TO MODIFY THE TAMPA BASE SYSTEM TO INCLUDE NEW DABS
 FUNCTIONS, INCLUDING A NEW THRESHOLD ALPHA BETA GAMMA (TAES G TRACKER FOR IMPROVED PERFORMANCE.

12. MILESTONES:

TYPE INDICATOR	DESCRIPTION
"	COMPLETE OPERATIONAL T&F

CORR DATE
11/81

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 142-176-040 2. START DATE: 6/75 3. REVISION NUMBER: 1
 4. TITLE: DATA LINK INTERFACE 5. MANAGER: JOHN HORROCKS
 6. ORGANIZATION: ARD-120 7. TELEPHONE NUMBER: 202-826-1336
 9. EQUIPMENT: TECHNICAL PROGRAM PLAN FAA-ED-14-2A
 10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 FARIC

AGREEMENT NUMBER:
 TPL 03-110

11. SPECIFIC OBJECTIVES:

TO DEVELOP, TEST AND EVALUATE AN INTERFACE BETWEEN AN ARTS IIIA AND DABS WITH FULL DATA LINK CAPABILITY. FUNCTIONS TO BE CONSIDERED FOR DATA LINKS INCLUDE HSAW, CONFLICT ALERT, H&C, WEATHER, ETC. THE APPROACH IS TO ADD SOFTWARE MODULES TO THE ARTS IIIA ALL DIGITAL SYSTEM (ADS) SOFTWARE DEVELOPED UNDER 142-176-020.

12. MILESTONES:

TYPE INDICATOR	DESCRIPTION	COMPR DATE
N N	COMPLETE T&E	
N N	ADS/DATA LINK T&E REPORT (E/I)	
N N	START T&E	
N Z	EXPER SOFTWARE FOR DATA LINK APPLICATIONS	10/84

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 143-102-030 2. START DATE: 10/80 3. REVISION NUMBER: 0
 4. TITLE: ASDE-3 SUPPORT TO AAF 5. MANAGER: DONALD SAUNDERS
 6. ORGANIZATION: AFI-120 7. TELEPHONE NUMBER: 202 426-9342
 9. REQUIREMENT: AAF LTR "ASDE-3 SPEC SUPPORT," DATED 11/13/80
 10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 TSC/JOHN O'GRADY
 FAATC

AGREEMENT NUMBER:
 PPA FA-121
 TDE 02-106

11. SPECIFIC OBJECTIVES:

PROVIDE A REVISED ASDE-3 RADAR SPECIFICATION AND RELATED TECHNICAL SUPPORT TO THE AAF ASDE-3 PRODUCTION PROCUREMENT. AS PART OF THE TECHNICAL SUPPORT, REPORTS AND FUNCTIONAL DESIGN SPECIFICATIONS WILL BE PROVIDED FOR IMPROVED RAINFALL CLUTTER REJECTION AND FOR TEST AND CALIBRATION.

12. MILESTONES:

TYPE INDICATOR	DESCRIPTION	CONF DATE
M T	REVISED ASDE SPEC DELIVER TO AAF (EJ)	7/81
M T	FREQUENCY AGILITY REPORT COMPLETE	8/81
MC T	ASDE-3 ANTENNA DEVELOPMENT REPORT COMPLETE	8/81
MC T	RADOME WIND LOADING REPORT COMPLETE	9/81
M T	FINAL RPT FOR IMPROVED RAINFALL REJECTION	9/81
M T	FINAL RPT ON USE OF DAS FOR TEST & CALIBRATION(EJ)	9/81

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. ISSUE NUMBER: 151-410-01W 2. START DATE: 1/78 3. REVISION NUMBER: 8
 4. TITLE: SYSTEMS ENGINEERING SUPPORT 5. MANAGER: ERIC MANDEL
 6. ORGANIZATION: ABB-410 7. TELEPHONE NUMBER: 202-426-8427
 9. REQUIREMENT: AWES-EDPS(2.2.1)

10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 TSC-PFA

AGREEMENT NUMBER:
 FA-167-0-A

11. SPECIFIC OBJECTIVES:

TO INSURE THAT THE AWES ACTIVITIES ARE INTEGRATED INTO A COMPREHENSIVE SYST WHICH SUPPORTS ALL APPLICABLE ELEMENTS OF THE NAS. SPECIFICALLY THIS INVOLVES DEVELOPING A CLEAR DEFINITION OF THE AV WX PROBLEM, PERFORMING VARIOUS BENEFIT ANALYSES, DEVELOPING A DETAILED FUNCTIONAL DESCRIPTION AND REQUIREMENTS DOCUMENT FOR THE INPUTS, PROCESSING, OUTPUTS DISPLAY, ETC PERTAINENT TO THE SYSTEM DESIGN.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURR DATE
#		SYSTEM ENGINEERING CONTRACT SELECTION	1/80
MC	H TK	AWES FUNCTIONAL DESCRIPTION	10/80
	K	ETABS OPERATIONAL INTERFACE REQS (AWES)	11/80
		SUMMARY AWES FUNCTIONAL DESCRIPTION	6/81

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 151-412-01W 2. START DATE: 6/79 3. REVISION NUMBER: 3
4. INITIAL: DEVELOP DATA LINK WEATHER PRODUCTS 5. MANAGER: GLENN GLASSRUH
6. ORGANIZATION: ARD-410 7. TELEPHONE NUMBER: 202-426-8427
9. EQUIPMENT: A-ES EDPP (2.1.7); ARD-1 REQUEST,
10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME: AGREEMENT NUMBER:
 FAA TECH CT - TED (PENDING) 15-289

11. SPECIFIC OBJECTIVES:

OBTAIN REAL-TIME UPPER AIR WIND INFORMATION IN THE TERMINAL AREA BY PROCESSING DABS DEPIVED
 TRACK/GROUND SPEED (FROM GROUND SENSOR) AND TRUE AIRSPEED/HEADING (DATA LINKED FROM AIRCRAFT).

12. MILESTONES:

TYPE			CURR
INDICATOR	DESCRIPTION		DATE
P HN	DEMONSTRATE DATA LINK WX PRODUCTS SIMULATION		1/81
N	FINAL REPORT ON NUMERICAL MODEL DEVELOPMENT		7/81
N 2	WINDS ALOFT FEASIBILITY STUDY USING DABS D/L		4/82
N P HN	FIRST FULL SCALE D/L WX PROD TST USING DABS INPUTS		8/83
N P N	1ST FULL SCALE WX PROD TST IN H/O OF WINDS TO N&S		4/84
N P HN	FINAL REPORT/TECH DATA PKG. ON DATA LINK WX PRODS		7/84

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 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 151-412-024 2. START DATE: 5/80 3. REVISION NUMBER: 2
 4. TITLE: COCKPIT WEATHER DISPLAY 5. MANAGER: JIM MUNCY
 6. ORGANIZATION: ASD-410 7. TELEPHONE NUMBER: 202-426-4427
 8. REQUIREMENT: AAMS EDPD (2.2.7)
 10. PARTICIPATING DOI/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 FAA TECH CT-TPD (PENDING)

AGENCY NAME: NRP:
 CT-TPD

11. SPECIFIC OBJECTIVES:

PROVIDE A LOW COST ALTERNATIVE FOR THE DISPLAY OF HAZARDOUS WEATHER IN GENERAL AVIATION AIRCRAFT WHICH ARE NOT FASTER EQUIPPED.

12. MILESTONES:

TYPE INDICATOR	DESCRIPTION	CONF DATE
M P HN K	CONTINUE LARGE SCALE DEMO IN ANOTHER AREA IF REQD	4/83

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 151-413-01W 2. START DATE: 9/79 3. REVISION NUMBER:
 4. TITLE: CENTER WEATHER SERVICE UNIT (CWSU) DEVELOPMENT 5. MANAGER: F MANDEL
 6. ORGANIZATION: AFM-410 7. TELEPHONE NUMBER: 702-426-8827
 8. REQUIREMENT: AMES-EDPD (2...2)
 10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:
 ORGANIZATION NAME: AGREEMENT NUMBER:
 FAA TECH CT - TFD 15-289

11. SPECIFIC OBJECTIVES:

IN SUPPORT OF THE FET PROG PLAN, PROVIDE AN AV WX SYS EXPERIMENTAL CAPABILITY AT FAA TECH CT BY
 ESTABLISHING AN "M" COMPLEX AS PART OF THE ENROUTE SSF, INTERFACED WITH THE DATA AND EXPERIMENTAL
 SYS, AND MODIFY THE SSF ACCORDINGLY. DESIGN & CONDUCT VARIOUS EXPER. & TSTS IN SUPT OF THE AV WX DEV
 EFFORT TO RESOLVE THOSE ISSUES DEFINED IN THE AVIATION WEATHER SYSTEM PROGRAM PLAN.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURR DATE
M P	HN K	PROVIDE TDP FOR DISP. WX PROD TO CWSU METEOROLOG.	
MC	HN	ESTABLISH INITIAL CWSU WORK STATION CAP	9/81
MCP	HN K	COMP FR FOR HDWE & SFTWR TO AUTONATE CWSU FACILITY	3/82
M P	HN K	TDP TO UTIL.FSS D/R TO PRES. WX TO CWSU WET Z CONT	3/82
MCP	HN	COMP FR FOR RADAR DATA DISTRIBUTION FOR CWSU DEV	1/83
"	Z	ENGRG RQMT/AUTO DISSEMINATION OF WX INFO	4/83
MCP	HN	COMP FR FOR FURTHER CWSU ENHANCEMENTS (SAT. DATA)	4/84
M P	N	COMPL CWSU FLD T&E (AFTER DELIV. 1ST.PRODN. STG 3)	6/86

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 151-413-03W 2. START DATE: 5/80 3. REVISION NUMBER: 4
 4. TITLE: TERMINAL WEATHER CONTROLLER SUPPORT 5. MANAGER: ERIC MANDEL
 6. ORGANIZATION: ARD-410 7. TELEPHONE NUMBER: 202-826-8427
 8. REQUIREMENT: A-PS-FCTP(2.2.5)

10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:

AGREEMENT NUMBER:

11. SPECIFIC OBJECTIVES:

DISPLAY A/M WEATHER DATA ON TIDS AND CCP. DISPLAY WEATHER RADAR DATA ON THE ARTS DISPLAY AND DISPLAY OTHER GRAPHICS GENERATED BY THE CMSU ON THE ARTS OR A/M ALTERNATIVE DISPLAY.

12. MILESTONES:

TYPE INDICATOR	DESCRIPTION	CUSER DATE
M P H	LETTER REPORT ON TIDS WX INPUT TO ARD-100 TDP	10/83
M : H	TDP TO DISPLAY WX RADAR INFOR ON ARTS	/85
M P H K	PROV TDP FOR DISPL WX PROD FOR TERM CONTRL ON TIDS	10/85

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/06/82

1. PROJECT NUMBER: 151-413-044 2. START DATE: 5/80 3. REVISION NUMBER: 3
 4. TITLE: CENTER CONT-OL-8 SUPPORT 5. MANAGER: ERIC MANDEL
 6. TECHNICAL AREA: AED-810 7. TELEPHONE NUMBER: 202-426-8427
 8. EQUIPMENT: AWES-EDFV (2.7.4)

10. PARTICIPATING GOVT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:

AGREEMENT NUMBER:

11. SPECIFIC OBJECTIVES:

DEVELOP, TEST AND EVALUATE METHODS FOR EFFECTIVELY DISPLAYING WEATHER INFORMATION ON CENTER
 CONTROLLING DISPLAY EQUIPMENT (I.E., FTABS, FVD AND EFFIS).

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	DATE
1	H	PERFORMANCE EVAL TESTS OF WX IMPCT ON FTABS	6/83
2	H	PERFORMANCE EVAL. TESTS OF WX INFO ON FTABS COMP.	6/83
3	H	LTR RPT TO AED-100/ETABS WODS NEEDED TO PROVIDE WX	8/83

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 151-413-064 2. START DATE: 6/79 3. REVISION NUMBER: 4
 4. TITLE: SOLID STATE ATIS 5. MANAGER: RAYMOND COLAC
 6. ORIGINATOR: AND-410 7. TELEPHONE NUMBER: 202-426-8427
 8. REFERENCE: A-PS-4IPP (2.2.5); 9450-1, AAF-430-79-007
 10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 T C

AGREEMENT NUMBER:
 1PAA083

11. SPECIFIC OBJECTIVES:

DEVELOP A TDP FOR A SOLID-STATE REPLACEMENT FOR ATIS.

12. MILESTONES:

TYPE INDICATOR	DESCRIPTION	CURR DATE
1	SYSTEM DESIGN COMPLETE FOR SOLID STATE ATIS	6/79
4	SYSTEM PROTOTYPE DEVELOPED	9/80
MCP H	FIELD TEST COMPLETE FOR SOLID STATE ATIS	2/82
MCP H	TDP HAND OFF FOR SOLID STATE ATIS	3/82

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 152-410-024 2. START DATE: 4/79 3. REVISION NUMBER: 2
 4. TITLE: DENVER TERMINAL AREA WEATHER SUPPORT (PROFS) 5. MANAGER: ART HILSENROD
 6. ORGANIZATION: AND-410 7. TELEPHONE NUMBER: FTS-320-6819
 8. PERIOD: ARES EDPP (2.2.9); NTSP ITR OF 7-27-77 AND 10-28-77
 9. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 NOAA/EEL ISA

AGREEMENT NUMBER:

11. SPECIFIC OBJECTIVES:

PARTICIPATE IN DENVER TERMINAL AREA IN JOINT NOAA/FAA TERMINAL AREA WEATHER SUPPORT SUBSYSTEM
 (PROFS) ENGINEERING AND TEST AND EVALUATION PROGRAM. PROFS OUTPUT TO BE USED AS CRITICAL INPUT TO
 ARES TERMINAL AREA SUBSYSTEM.

12. MILESTONES:

TYPE	DESCRIPTION	CURR
INDICATOR	INITIAL SYSTEM FUNCTIONAL DESCRIPTION (PROFS)	DATE 1/81

RESEARCH AND TECHNOLOGY
TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 153-410-01W
2. START DATE: 1/78
3. REVISION NUMBER: 7
4. TITLE: AMOS AND WX SENSORS
5. MANAGER: JOHN DORRAN
6. ORGANIZATION: ARD-410
7. TELEPHONE NUMBER: 202-426-8427
9. REQUIREMENT: AMFS EDPP (4.2.1); FSS PROGRAM: 9550-1, AFS-700-78-1
10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
NWS / NWS
NWS
HUMBOLT CT. CALIF.

AGREEMENT NUMBER:
FA73WA1394 FA78WA1872
FA78WAI407
FA78WA4251

11. SPECIFIC OBJECTIVES:

ENGINEER AND DEVELOP ACCEPTABLE AUTOMATED WEATHER OBSERVATION SYSTEMS. DEMONSTRATE THE FEASIBILITY OF AMOS THROUGH A DEMONSTRATION AND TEST PERIOD AT DULLES AIRPORT.

12. MILESTONES:

TYPE INDICATOR	DESCRIPTION
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CURR DATE

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/06/82

1. DLDP NUMBER: 153-411-014 2. START DATE: 10/79 3. REVISION NUMBER: 1
 4. TITLE: HELICOPTER WX DETECTION SYSTEMS 5. MANAGER: JOHN DOPHAN
 6. ORGANIZATION: ARI-410 7. TELEPHONE NUMBER: 202-426-8427
 8. REQUIREMENT: AWES-REF: (4.2.3) HELICOPTER PROGRAM PLAN. LT PPT ASW-1 TO ARD-1
 10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 OFFICE OF NAVAL RESEARCH DOT
 BUREAU OF LAND MANAGEMENT
 ARL

AGREEMENT NUMBER:
 FA77WA1818

11. SPECIFIC OBJECTIVES:

TO PROVIDE WEATHER OBSERVATION AND DETECTION SYSTEM TO SUPPORT THE INCREASE OF HELICOPTER OPERATIONS. DEVELOP AND TEST LOW COST WEATHER OBSERVATION SYSTEM (ALWOS) THAT WILL WITHSTAND SALT ENVIRONMENT. DEVELOP AND TEST THUNDERSTORM (SPHERICS) TRACKING SYSTEM IN GULF OF MEXICO.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURR DATE
M	H	INSTALL TSTM DETECT SYS IN ABC	6/80
M	H	INSTALL TSTM DET. SYS ON GULF COAST	9/80
MC	H K	START GULF TSTM DET SYS TEE	10/80
M	H	DEPLOY ALWOS ON OFFSHORE PLAT	11/81
M	H	COMPLETE INITIAL GULF ALWOS TESTS, HFLO, WX DET SYST	10/81
M	H	COMPLETE INITIAL ARO TESTS FOR HFLO, WX DET SYST	10/81
MC	H K	COMPLETE GULF TSTM DET SYS TESTS FOR HELICOPTERS	12/81
M P	H K	COMP TSTM DETECT SYS TTP FOR HFLO, WX DET SYST.	8/82
MCPS	G	COMP GULF TESTS OF FOR ALWOS (FINAL REPORT)	10/82

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 154-352-010 2. START DATE: 12/79 3. REVISION NUMBER: 1
 4. TITLE: DUST FRONT EARLY WARNING FIELD TEST 5. MANAGER: J. D. MCVICKER
 6. ORGANIZATION: AEC-340 7. TELEPHONE NUMBER: 202-426-8605
 9. REQUIREMENT: FAA-ED-15-2A
 10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 NAFEC WPL 15-414
 NOAA'S WAVE PROPAGATION LAB.
 NAFEC/NOAA WPL 1AA

AGREEMENT NUMBER:

11. SPECIFIC OBJECTIVES:

TO EVALUATE THE USE OF PRESSURE-JUMP SENSORS IN THE EARLY DETECTION AND TRACKING OF THUNDERSTORM DUST FRONTS IN AN AIRPORT ENVIRONMENT.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURR DATE
M	Y	PRESS JUMP SENSORS & OPER AT ATLANTA	4/80
M	X	TECH REPORT ON P.J. PERFORMANCE	4/82

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 155-410-01a 2. START DATE: 5/80 3. REVISION NUMBER: 4
 4. TITLE: NEXRAD JSFC SUPPORT 5. MANAGER: FRANK COONS
 6. ORGANIZATION: ART-410 7. TELEPHONE NUMBER: 202-427-7150
 9. REQUIREMENT: AWS EDPP(3.2.1) DIRECTIVE FROM OMB & FED COOPT. OF METEOROLOGY.
 10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME: NOAA, DOC FR 21-15403 BFMIB AGREEMENT	AGREEMENT NUMBER: DTFA 01-P1-Y-10505
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11. SPECIFIC OBJECTIVES:

PROVIDE DIRECT SUPPORT TO NEXRAD JSFC OR DOT SHARE OF THE JSFC BUDGET SO THAT ENGINEERING SUPPORT AND FUNDING OF COMPETITIVE DEVELOPMENT CONTRACTS UNDER A-109 PROCESS CAN BE OBTAINED.

12. MILESTONES:

TYPE INDICATOR	DESCRIPTION	CURR DATE
MC K	JOINT NEXRAD PROGRAM PLAN APPROVED	10/80
MC K	AWARD MULTIPLE SYS DEFINITION PHASE CONTRACT, NEXRAD	3/82
MCP K	AWARD MULTIPLE VALIDATION PHASE CONTRACT, NEXRAD	7/83
MCP K	AWARD FULL SCALE DEVELOPMENT CONTRACTS, NEXRAD	5/85

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 155-410-024 2. START DATE: 7/79 3. REVISION NUMBER: 3
 4. TITLE: WEAPAD REQUIREMENTS ANALYSIS ENGINEERING SUPPORT 5. MANAGER: FRANK COONS
 6. ORGANIZATION: ARD-410 7. TELEPHONE NUMBER: 202-426-8427
 9. EQUIPMENT: AWES EDP (3.0.2) WEAPAD PROGRAM

10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 TSC IPA

AGREEMENT NUMBER:
 PA-168

11. SPECIFIC OBJECTIVES:

PROGRAM COST/BENEFIT ANALYSIS, SITE ANALYSIS AND IMPLEMENTATION PLANNING FOR THE NEXT GENERATION OF WEATHER RADAR. THIS PROGRAM ALSO MUST PROVIDE OVERALL ENGINEERING SUPPORT TO THE JSFC TO INSURE THAT FAA REQUIREMENTS ARE SATISFIED.

12. MILESTONES:

TYPE INDICATOR	DESCRIPTION	CURR DATE
M	TSK 1 PROJECT REPORT ON WEAPAD EDP ANALYSIS	2/80
M	TASK #2 INTERIM REPORT ALTERNATIVE ANALYSIS, WEAPAD	7/80
M	DRAFT ACQUISITION PAPER FOR DOPPLER WEATHER RADAR	6/81
M P	COST BENEFIT ASSESSMENT, WEAPAD REQUIREMENTS	9/82

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 155-410-03. 2. START DATE: 5/80 3. REVISION NUMBER: 4
 4. TITLE: NEARAD RADAR TERMINAL AREA COVERAGE STUDIES 5. MANAGER: FRANK WELLENICZ
 6. ORGANIZATION: ARF-410 7. TELEPHONE NUMBER: 202-426-8427
 9. EQUIPMENT: AWS EDPI(3.2.3)
 10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 NOAA/FAAD/FAO1
 DEPT OF COM., NOAA NSCL IAA

AGREEMENT NUMBER:
 80-Y-10524
 DT FA01-60-Y-10524

11. SPECIFIC OBJECTIVES:

DETERMINE THE WEATHER RADAR SITING CRITERIA FOR TERMINAL AREA (30M MI RADIUS) COVERAGE .

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CUPR
			DATE
M		DETECT OF HAZ WX IN T/A BY DOP WX RADAR (ANL RPT)	3/81
		TERMINAL AREA HAZARD DETECTION ANAL REPORT COMPL	12/81
		RPT ON DOP WX RADAR SITING CRIT TO DET T/A WX HAZ	1/82

 ELECTRONIC AND TECHNOLOGY

TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 2722/87

1. PROGRAM NUMBER: 156-230-014
 2. START DATE: 12/79
 3. REVISION NUMBER: 1
 4. TITLE: SUBSISTENCE TECHNOLOGY DEVELOPMENT (ONLY AT PROJECT)
 5. MANAGER: MARTIN NATCIELISKY
 6. DESCRIPTION: 441-101
 7. TECHNICAL NUMBER: 202-402-8576
 8. CLASSIFICATION: (S) (U) (C) (R) (E) (A) (I) (O) (D) (S) (I) (N) (C) (T) (I) (O) (N) 6/25/76
 9. CLASSIFICATION: (S) (U) (C) (R) (E) (A) (I) (O) (D) (S) (I) (N) (C) (T) (I) (O) (N) 6/25/76

10. CLASSIFICATION: (S) (U) (C) (R) (E) (A) (I) (O) (D) (S) (I) (N) (C) (T) (I) (O) (N) 6/25/76
 11. CLASSIFICATION: (S) (U) (C) (R) (E) (A) (I) (O) (D) (S) (I) (N) (C) (T) (I) (O) (N) 6/25/76
 12. CLASSIFICATION: (S) (U) (C) (R) (E) (A) (I) (O) (D) (S) (I) (N) (C) (T) (I) (O) (N) 6/25/76

13. CLASSIFICATION: (S) (U) (C) (R) (E) (A) (I) (O) (D) (S) (I) (N) (C) (T) (I) (O) (N) 6/25/76

VALIDATE THE USE OF THE DATA TO DETECT HAZARDOUS WEATHER. EVALUATE TECHNIQUES TO REDUCE DATA CONTAMINATION DUE TO (E.G., GROUND CLUTTER) OR MISSED. DETERMINE HOW BEST TO PREPARE'S EQUIPMENT.

14. CLASSIFICATION: (S) (U) (C) (R) (E) (A) (I) (O) (D) (S) (I) (N) (C) (T) (I) (O) (N) 6/25/76

INDICATOR	DESCRIPTION	DATE
W	RPT. ON DATA ANALYSIS TO ESTABLISH HAZ CORREL	4/81
W	RPT. ON DATA ANALYSIS TO ESTABLISH HAZ CORREL	6/81
W	RPT. ON DATA ANALYSIS TO ESTABLISH HAZ CORREL	6/82
W	RPT. ON DATA ANALYSIS TO ESTABLISH HAZ CORREL	6/83
W	RPT. ON DATA ANALYSIS TO ESTABLISH HAZ CORREL	9/86
W	RPT. ON DATA ANALYSIS TO ESTABLISH HAZ CORREL	2/87

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 156-230-02W 2. START DATE: 5/80 3. REVISION NUMBER: 1
 4. TITLE: WEATHER RADAR EXPERIMENTAL FACILITY 5. MANAGER: MARTIN WATCHIPOISKY
 6. ORGANIZATION: AED-031 7. TELEPHONE NUMBER: 202-476-8576
 9. PERFORMANCE: A-50-0100 (3.2.5)
 10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 FAA TECH CENTER, PROJ. 156230510/20
 NOAA NATIONAL SEVERE STORMS LAB
 USAF MIT/LINCOLN LAB

AGREEMENT NUMBER:
 TFD-02-106
 IAA DTFAC180 Y10524
 IAA DTFAC180 Y10546

11. SPECIFIC OBJECTIVES:

DEVELOP A WEATHER RADAR DATA PROCESSING AND DISPLAY SYSTEM (DPDS) FOR EXPERIMENTAL TESTING IN FAA OPERATIONAL ENVIRONMENTS. TEST AND EVALUATE OVERALL SYSTEM DESIGN, DISPLAY PRODUCTS, AND GEOGRAPHICAL SENSITIVITY OF METEOROLOGICAL TECHNIQUES.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURR DATE
WCP	W	DATA PROCESSING AND DISPLAY SYSTEM DELIVERED	10/82
MCP	H W	DPDS INTEGRATED INTO FAA TRANSP. TEST BED FACILITY	6/83
M P	H W	FAA EVALUATION REPORT COMPLETE	12/86

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 156-231-01W 2. START DATE: 10/80 3. REVISION NUMBER: 1
 4. TITLE: WEATHER RADAR SUSTAINING ENGINEERING 5. MANAGER: MARTIN MATCHIKOLSKY
 6. ORGANIZATION: ARD-231 7. TELEPHONE NUMBER: 202-426-8576
 8. DESCRIPTION: ADA-1/ADD-1/AND-1/2 DIRECTION 6/25/76; AMEN-EDDP(3.2.6/3.2.5/3.2.3)
 10. PARICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:
 ORGANIZATION NAME: AGREEMENT NUMBER:
 USAF WIT/LINCOLN LAB IAA DTEA 0180Y10546
 FFA TECH CTR PROJECT # 156230510/20/30 TFD 02-106

11. SPECIFIC OBJECTIVES:

NOTE: THIS PROJECT RESUME COVERS THE FLE FUNDED PORTION OF PROJECT 156-230-01W FOR TERMINAL WEATHER RADAR DEVELOPMENT.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURR	DATE
M	M	RPT-WX DATA ANAL TO ESTABLISH HAZ COPREL	4/81	
PC		RPT-TFRM WX TECH REQUIS & CAND SYS DESC	6/81	

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 : RESEARCH AND TECHNOLOGY :
 : TECHNICAL PROGRAM DOCUMENT :
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REPORT DATE: 3/08/82

1. PROJECT NUMBER: 156-410-01W 2. START DATE: 12/77 3. REVISION NUMBER: 5
 4. TITLE: W. RADAR METEOROLOGICAL TECHNIQUES DEVELOPMENT 5. MANAGER: FRANK HPLEWICZ
 6. ORGANIZATION: AFD-410 7. TELEPHONE NUMBER: 202-426-8427
 8. EQUIPMENT: AWD-PPF(3.2.4) AAT 9550 (DTE 10/78)

10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 NOAA/NESL ISA

AGREEMENT NUMBER:
 FA77WALB06

11. SPECIFIC OBJECTIVES:

CONTINUE SEVERE WEATHER TRACKING AND PREDICTION ALGORITHM DEVELOPMENT. DEVELOP NEW HAZARDOUS
 WEATHER SIGNALING RECOGNITION ALGORITHM.

12. MILESTONES:

TIME INDICATOR	DESCRIPTION	CURR DATE
1976-1977	THUNDERSTORM PENETRATION DATA ANALYSIS	9/79
M	ENHANCED ALGORITHM MET. TECH. DEV.	1/80
AC	ENHANCED ALGORITHM TEST, METEOROLOGICAL TECH DEV	8/80
X P	FINAL SOFTWARE TDP COMPLETE, METEOROLOGICAL TECH DEV	6/83

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 156-410-02W 2. START DATE: 5/80 3. REVISION NUMBER: 2
 4. TITLE: AIRBORNE DOPPLER WEATHER RADAR EVALUATION 5. MANAGER: JIM WUNCY
 6. ORGANIZATION: ARD-410 7. TELEPHONE NUMBER: 202-426-8427
 9. EQUIPMENT: AWES PROGRAM

10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:

AGREEMENT NUMBER:

11. SPECIFIC OBJECTIVES:

FLIGHT TEST COMMERCIAL AIRBORNE DOPPLER WEATHER RADAR USING GROUND BASED DOPPLER AS A STANDARD.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURR DATE
MC	H	FLIGHT TESTING OF COMMERCIAL AIRBORNE DOPPLER CONF	8/82
MC	H	FINAL REPORT COMPLETE, AIRBORNE DOPPLER WX RADAR	12/82

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 156-410-04w 2. START DATE: 12/80 3. REVISION NUMBER: 0
 4. TITLE: JOINT AIRPORT WEATHER STUDIES (JAWS) 5. MANAGER: ARTHUR WILSENROT
 6. ORGANIZATION: APD-410 7. TELEPHONE NUMBER: 202-426-6427
 9. REQUIREMENT: AFS EDPD (REF 1)
 10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 VOF
 NASA
 NOAA
 NCAW
 UNIV OF CHICAGO

AGREEMENT NUMBER:

11. SPECIFIC OBJECTIVES:

PROVIDE MULTIPLE DOPPLER WEATHER RADAR, SURFACE OBSERVATIONS AND AIRCRAFT PENETRATION DATA SETS FOR ANALYSIS TO DETERMINE FAA'S REQUIREMENTS FOR TERMINAL AND EN ROUTE AREA HAZARDOUS WEATHER INFORMATION.

12. MILESTONES:

TYPE INDICATOR	DESCRIPTION	CURS DATE
■	COMPLETE FIELD DATA SET COLLECTION	8/82
■	COMPLETE ANALYSIS OF TERMINAL AREA HAZ WX TEST RPT	11/82

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 213-460-080 2. START DATE: 10/79 3. REVISION NUMBER: 2
 4. TITLE: WARC IMPLEMENTATION 5. MANAGER: R DUPRE/J D FRETZ
 6. ORGANIZATION: ARD-451C/D 7. TELEPHONE NUMBER: 202-426-3994
 9. REQUIREMENT: FAA-ED-21-4, SECTION 2.2.
 10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 DEPT. OF COMMERCE/ITS

AGREEMENT NUMBER:
 FR 2-5455

11. SPECIFIC OBJECTIVES:

IN-HOUSE RESOURCES WILL BE USED TO DETERMINE WHAT MODIFICATIONS TO FAA OPERATING REGULATIONS, ALLOCATIONS, AND STANDARDS WILL BE REQUIRED. WORK UNDER CONTRACT WILL EVALUATE THE INTERFERENCE POTENTIAL OF NEW SYSTEMS INTRODUCED INTO AERONAUTICAL BANDS AT THE WARC. THESE WILL BE PRIMARILY SATELLITE SYSTEMS BUT WILL ALSO INCLUDE SOME AIRBORNE, MARITIME, AND GROUND-BASED SYSTEMS.

12. MILESTONES:

INDICATOR	DESCRIPTION	CURR DATE
*	FINAL INTERNAT. RECTS. REPORT ISSUED	6/81
*	FINAL REPORT ON CONUS VARIANCES ISSUED	2/82
*	RNL NARROWBAND STUDY - FINAL REPORT	3/83

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 213-460-090 2. START DATE: 2/81 3. REVISION NUMBER: 1
 4. TITLE: AERONAUTICAL BAND STUDIES 5. MANAGER: CHARLES CRAH
 6. ORGANIZATION: ARD-452 7. TELEPHONE NUMBER: 202-426-7628
 9. REQUIREMENT: FAA-FU-21-4, SECTION 2.2.7
 10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 DCC/ITS

ACCEMENT NUMBER:
 IAA DTFA01-81-Y-10534

11. SCIENTIFIC OBJECTIVES:

THE PURPOSE OF THIS TASK IS TO IDENTIFY THE INTERFERENCE THRESHOLDS FOR AVIONICS OPERATING IN THE AVIATION FREQUENCY BANDS. ICAO HAS ESTABLISHED THE HARMFUL INTERFERENCE TO RADIO STUDY GROUP TO INVESTIGATE CAUSES AND REMEDIES FOR INTERFERENCE TO EQUIPMENT IN ALL OF THE AERONAUTICAL FREQUENCY BANDS. FAA PROVIDES THE SOLE U.S. MEMBER. WHILE A SUBSTANTIAL AMOUNT OF INFORMATION HAS BEEN REPORTED ON ADF, VOR, AND VHF COM, OTHER BANDS HAVE RECEIVED LITTLE ATTENTION. THIS TASK WILL INITIALLY ADDRESS ILS (108-112 MHZ). OTHER BANDS MAY BE ADDRESSED LATER.

12. MILESTONES:

TYPE INDICATOR	DESCRIPTION	CUIR DATE
M	FIN RPT READY FOR FUPL - AERO BAND STUDIES	8/82

CUIR
DATE
8/82

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 213-460-390 2. START DATE: 10/79 3. REVISION NUMBER: 0
 4. TITLE: RADIO FREQUENCY SPECTRUM MEASUREMENT TECHNIQUES 5. MANAGER: J. D. FRETZ
 6. ORGANIZATION: ARD-451C 7. TELEPHONE NUMBER: 202-426-3994
 9. REFERENCE: FAA-ED-21-4, SECTION 2.2.7
 10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:

AGREEMENT NUMBER:

11. SPECIFIC OBJECTIVES:

REVISE THE CURRENT MEASUREMENTS HANDBOOK, 6050.23, TO REFLECT THE AVAILABILITY OF NEW MEASUREMENT TECHNIQUES (SUCH AS USING INERTIAL NAVIGATION SYSTEMS FOR POSITION FIXES, COMPUTER ASSISTED ANALYSIS, ETC.) AND TO INCLUDE STANDARDS FOR BOTH EXISTING AND NEW SYSTEMS.

12. MILESTONES:

TYPE INDICATOR	DESCRIPTION	CURR DATE
*	COMPLT SURVY PRAC & PLANNING FOR NEW SYSTEMS	4/80
*	STDS AND MEASUREMENTS REQTS DFFINED	7/80
*	FIN DRAFT REPORT RELEASED - RF SPECTRUM MEAS TECH	5/82

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 213-461-100 2. START DATE: 10/79 3. REVISION NUMBER: 1
 4. TITLE: DOPPLER WEATHER RADAR FREQUENCY PLANNING 5. MANAGER: WILLIAM REYTA
 6. SEPARATION: ARD-452C 7. TELEPHONE NUMBER: 202-476-3994
 9. REQUIREMENT: FAA-PP-21-4, SECTION 2.2.6
 10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 DOW/ITE
 FAA TECH CENTER

AGREEMENT NUMBER:
 IAA DTFA01-81-Y-10535
 TFD 02-106,216-461-510

11. SPECIFIC OBJECTIVES:

- 1) INITIATE STUDY TO IDENTIFY A SUITABLE FREQUENCY BAND TO ACCOMMODATE A NEW GENERATION OF WEATHER RADAR. 2) INVESTIGATE BAND SHAPING ISSUES ASSOCIATED WITH THE INTRODUCTION OF DOPPLER WEATHER RADAR. 3) INVESTIGATE CAPABILITIES OF VARIOUS ASR VIDEO PROCESSOR MODES TO REJECT/SUPPRESS INTERFERENCE PULSE TRAINS (PAATC).

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CUPR
	MC S	COMP ENG STUDY WX RADAR W/OTHER SYS IN FREQ BAND	DATE 9/81
	N	PAATC COMPLETE TESTS ON ASR-7, ASR-8, & ASR (MTD)	9/82

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 213-461-110 2. START DATE: 11/81 3. REVISION NUMBER: 0
 4. TITLE: RADAR FREQUENCY AND PRF ASSIGNMENT CRITERIA 5. MANAGER: WILLIAM R BEYER
 6. ORGANIZATION: ARD-452C 7. TELEPHONE NUMBER: 202-426-3994
 9. REQUIREMENT: FAA-ED-21-4, SECTION 2.2.1(2)
 10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 FAA TECHNICAL CENTER
 DOC/ITS

AGREEMENT NUMBER:
 TFC 02-106,213-461-510
 IAA

11. SPECIFIC OBJECTIVES:

REVISE THE CURRENT HANDBOOK (6050.9, ISSUED 11/23/65 AND REVISED 5/3/67) TO REFLECT NEW RADAR FREQUENCY AND PULSE REPETITION FREQUENCY (PRF) ASSIGNMENT CRITERIA, COMPUTER AIDED PROPAGATION AND TERRAIN ANALYSIS, AND OTHER CHANGES IN FAA POLICIES AND REGULATIONS.

12. MILESTONES:

TYPE INDICATOR	DESCRIPTION	COMPL DATE
	COMPLETE FINAL REPORT - ASSIGNMENT CRITERIA	12/83

COMPL
DATE
12/83

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 213-461-160 2. START DATE: 10/80 3. REVISION NUMBER: 1
 4. TITLE: MODE S ELECTROMAGNETIC COMPATIBILITY (EMC) ANALYSIS 5. MANAGER: JERRY LEE ANDERSON
 6. ORGANIZATION: ARD-451 7. TELEPHONE NUMBER: 202-426-3628
 9. REQUIREMENT: FAA ED 21-4, SECTION 2.2.8
 10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 ECAC, TASK 5
 DOC/NTIA
 FAA TECH CENTER

AGREEMENT NUMBER:
 IAA FA77NAI-778
 IAA DTFA01-80-Y-10535
 TPD 03-173,034-241-630

11. SPECIFIC OBJECTIVES:

TO DETERMINE THE ELECTROMAGNETIC COMPATIBILITY (EMC) OF MODE S WITH ATCRBS AND AIMS MODE 4 IN DENSE AIRCRAFT/SENSOR/INTERROGATOR ENVIRONMENTS FOR ANTICIPATED MODE S SURVEILLANCE AND DATA LINK DEMANDS. IN ADDITION, NTIA WILL ANALYZE THE EMC OF MODE S WITH IN-BAND SYSTEMS TO DETERMINE IF ANY SERIOUS PROBLEMS EXIST. THE EMC OF MODE S EQUIPMENT AND TACAN/DME WILL BE TESTED AND ANALYZED FROM A FREQUENCY MANAGEMENT STANDPOINT.

12. MILESTONES:

TYPE	DESCRIPTION	CORR
INDICATOR		DATE
	COMPLETE FINAL REPORT (ECAC)	5/80
MC S	NTIA DRAFT FINAL REPORT ON DABS EMC DELIVERED	9/80
M	INTERIM LETR RPT ON MODE S TO TACAN/DME EMC (ECAC)	7/82
M P	INTERIM LETR RPT ON TACAN/DME TO MODE S EMC (ECAC)	7/82

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 213-462-020 2. START DATE: 1/80 3. REVISION NUMBER: 0
 4. TITLE: LF/MF ASSIGNMENT HANDBOOK REVISION 5. MANAGER: ROBERT D. SMITH
 6. ORGANIZATION: ARD-052 7. TELEPHONE NUMBER: 202-426-3628
 9. EQUIPMENT: FAA-ED-21-4, SECTION 2.2.1(2) PAGE 4
 10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 OHIO UNIVERSITY

AGREEMENT NUMBER:
 DTFA01-80-C-10072

11. SPECIFIC OBJECTIVES:

REVISE THE LF/MF FREQUENCY ASSIGNMENT HANDBOOK TO REFLECT NEW INTERFERENCE PREDICTION CRITERIA AND METHODS. TO EXTEND ASSIGNMENT METHOD TO NEW BANDS FOR NON-DIRECTIONAL BEACONS PROPOSED IN WARC 79 AND TO REVISE AND INCORPORATE SHARING CRITERIA WITH MARITIME RADIO NAVIGATION AND TRAVELERS INFORMATION SERVICE BROADCASTING.

12. MILESTONES:

TYPE INDICATOR	DESCRIPTION	CUPR DATE
M	AWARD CONTRACTS TO OHIO UNIV.	6/80
WC	DRAFT RPTS ON NDB RX TESTS & PROP EFFECTS (OHIO U)	11/81
W	FINAL HANDBOOK - LF/MF ASSIGNMENT	2/83

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 213-462-030 2. START DATE: 2/81 3. REVISION NUMBER: 1
 4. TITLE: FM/AM/TV INTERFERENCE TO FAA COM/NAV FACILITIES 5. MANAGER: CHARLES CRAM
 6. ORIGINATOR: AFSC-450 7. TELEPHONE NUMBER: 202-476-3628
 9. PRIORITY: 9-50 & AF-730-80-08

10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 FAA TECH CENTER

AGREEMENT NUMBER:
 TPD 04-130,213-462-100

11. SPECIFIC OBJECTIVES:

ONE PORTION OF THIS TASK IS TO TEST FAA GROUND RECEIVER AND ANTENNA RESPONSES TO HIGH POWER FM/AM/TV BROADCASTING SIGNAL. THE TECHNICAL CENTER SHALL TEST RECEIVERS AND ANTENNAS FOR VHF/UHF COM. AND VLF/LF/VOR/DME MONITORING SYSTEMS. INTERMODULATION, CROSSMODULATION AND DEFENSE TESTS WILL BE PERFORMED ON RECEIVER USING SIMULATED BROADCASTING SIGNALS TO DETERMINE INTERFERENCE THRESHOLDS. ANTENNAS WILL BE TESTED FOR FREQUENCY RESPONSE, CROSS POLARIZATION LOSS, GAIN, AND REACTIVE LOADING EFFECTS RELATIVE TO SIGNALS IN THE BROADCASTING BANDS. THE TECHNICAL CENTER WILL PRODUCE A FINAL REPORT.

12. MILESTONES:

TYPE	DESCRIPTION	COMPLETION DATE
INDICATOR	INTERIM REPORT	5/82
	FINAL REPORT	1/83

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 213-462-040 2. START DATE: 10/79 3. REVISION NUMBER: 0
 4. TITLE: ANALYSIS OF MLS CHANNEL PLANS WITH L-BAND DWF 5. MANAGER: RALPH VALLONE
 6. ORGANIZATION: APD-452H 7. TELEPHONE NUMBER: 202-426-3628
 8. REQUIREMENT: FAA-ED-21-H

10. PARTICIPATING GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 ECAC, TASK 9

AGREEMENT NUMBER:
 IAA FA76WA1612

11. SPECIFIC OBJECTIVES:

THE OBJECTIVES OF THIS PROJECT ARE: TO PROVIDE TEST PLANS AND ONSITE MONITORING FOR THE EMPIRICAL
 DETERMINATION OF MLS CHANNEL SEPARATION CRITERIA; TO UPDATE AN MLS CHANNEL ASSIGNMENT MODEL; TO
 DEVELOP A SUPPLEMENTAL L BAND ENVIRONMENT; TO ANALYTICALLY DEVELOP CHANNEL SEPARATION CRITERIA; TO
 SUMMARIZE AND DOCUMENT THE TEST RESULTS; TO DEVELOP ALTERNATE CHANNEL PLANS; AND, TO RUN CH. ASGT
 MODEL.

12. MILESTONES:

TYPE INDICATOR	DESCRIPTION	CURR DATE
P	ANALYTICAL DISTANCE SEPARATION CRITERIA RPT COMP	2/80
C	COMPLETE BENCH TEST REPORT (PART OF MILESTONE #3)	2/80
C	COMPLETE POTENTIAL CHANNEL PLAN RPT (PART OF MS 6)	11/80
M	FINAL RPT ON ECAC CHANNEL ASSIGNMENT TASK (DRAFT)	9/81

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 213-462-070 2. START DATE: 10/79 3. REVISION NUMBER: 1
4. TITLE: TCAS ELECTROMAGNETIC COMPATIBILITY (EMC) ANALYSIS 5. MANAGER: JERRY LEE ANDERSON
6. ORGANIZATION: ASD-451 7. TELEPHONE NUMBER: 202-426-3628
9. REQUIREMENT: FAA-FD-21-4, SECTION 2.2.6
10. PARTICIPATING DOD/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 ECAC, TASK 5
 FPA TECH CENTER

AGREEMENT NUMBER:
 IAA FA77WAI-778
 TRF 03-173,034-241-630

11. SPECIFIC OBJECTIVES:

TO DETERMINE THE IMPACT OF AN OMNIDIRECTIONAL TCAS ON ATCRBS, MODE S, AND AIMS MODE 4 IN A DENSE AIRCRAFT/SENSOR/INTERROGATOR ENVIRONMENT. ALSO, TO DETERMINE THE EMC OF TCAS AND TACAN/DME FROM A FREQUENCY MANAGEMENT STANDPOINT. DETERMINE THE IMPACT OF TCAS II ON ATCRBS, MODE S, AND AIMS MODE 4 IN A DENSE AIRCRAFT/SENSOR/INTERROGATOR ENVIRONMENT.

12. MILESTONES:

TYPE INDICATOR	DESCRIPTION	CUPR DATE
M C	SUBMIT COPY OF FINAL ECAC RPT - BCAS TO MODF 4 EMC	8/81
M	DELIVER FINAL ECAC RPT ON BCAS TO ATCRBS/DARS EMC	12/81
M P	FINAL ECAC RPT (DRAFT)-TCAS IMPACT ON ATCRBS/MODF S	5/82
M P	ECAC LETTER RPT (DRAFT)-TCAS IMPACT ON AIMS/MODE 4	5/82
M P	FINAL RPT, (TCAS/BCAS-MODE S/DARS)&TAC/DME EMC (ECAC)	9/82

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 213-462-160 2. START DATE: 12/80 3. REVISION NUMBER: 1
 4. TITLE: R&T ANALYSIS-FMC CONSIDERATIONS. 5. MANAGER: WILLIAM REYTA
 6. ORGANIZATION: APL-457C 7. TELEPHONE NUMBER: 202-426-3994
 9. EQUIPMENT: FAA-FD-21-4, SECTION 2.2.8
 10. PARTICIPATING DCT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 ECAC, TASK 2

AGREEMENT NUMBER:
 IAA FA77631-778

11. SPECIFIC OBJECTIVES:

TO ANALYZE THE OPERATIONAL COMPATIBILITY OF GPS AVIONICS WITH PRESENT AVIONICS EQUIPMENTS ON COMMON AIRFRAMES. TO IDENTIFY FREQUENCY BAND SHARING ISSUES ASSOCIATED WITH GPS AND OTHER PLANNED FAA SYSTEMS IN L-BAND.

12. MILESTONES:

TYPE INDICATOR	DESCRIPTION	CURR DATE
	FINAL COPY, CONSULTING REPORT	6/82

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 213-462-360 2. START DATE: 10/76 3. REVISION NUMBER: 0
4. TITLE: VHF/UHF AIR/GND COMMUNICATIONS FREQUENCY ENGINEERING HANDBK 6050.4B 5. MANAGER: CHARLES CRAW
6. ORGANIZATION: ARD-452B 7. TELEPHONE NUMBER: 202-426-3994
9. REQUIREMENT: FAA-ED-21-4, SECTION 2.2.1(2), PAGE 8
10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 DOC/ITS
 ECAC

AGREEMENT NUMBER:
 IAA FA776A1778
 IAA FA76WA1775

11. SPECIFIC OBJECTIVES:

TO UPDATE THE EXISTING HANDBOOK WHICH ESTABLISHES CRITERIA FOR ASSIGNMENT OF FREQUENCIES TO VHF/UHF AIR/GROUND ("NAUTICAL PORTAL SERVICE", AS DEFINED BY THE INTERNATIONAL TELECOMMUNICATION UNION) COMMUNICATIONS FACILITIES. TECHNICAL AND ENVIRONMENTAL DISCUSSIONS ARE ALSO GIVEN FOR THE INSTRUCTION AND GUIDANCE OF THE FREQUENCY ENGINEER.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CDR DATE
M		DEVELOP TRANSMISSION LOSS CURVES	11/76
M		SEPARATION CRITERIA FOR SERVICE VOLUMES	12/76
M		SEPARATION OF ANTENNAS AT SITE	3/77
M		ANTENNA PATTERNS COMPLETE	4/77
MC S		BEGIN AGENCY COORDINATION - VHF/UHF A/C COMM HANDBK	12/80
MC		FINAL VHF/UHF A/C COMM FREQ ENGRG HANDBK FOR AED-1	10/81

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 213-462-370 2. START DATE: 11/76 3. REVISION NUMBER: 0
 4. TITLE: VHF/UHF MICROWAVE LINK FREQUENCY ENGINEERING HANDBOOK, 6050.17A REV 5. MANAGER: J. D. PETT
 6. ORGANIZATION: AND-4511 7. TELEPHONE NUMBER: 202-426-3994
 9. EQUIPMENT: FAA-ED-21-4, SECTION 2.2.6
 10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 ECAC

AGREEMENT NUMBER:
 IAA FA70WAI175

11. SPECIFIC OBJECTIVES:

TO REVISE HANDBOOK 6050.17A TO INCORPORATE 1) CRITERIA FOR NEW EQUIPMENT SUCH AS THE TELEVISION MICROWAVE LINKS 2) NEW FREQUENCIES AND INTERFERENCE ANALYSES FOR BAND SHARING WITH HIGH POWER SATELLITE SYSTEMS 3) IMPROVED ELECTROMAGNETIC COMPATIBILITY ANALYSIS AIDS.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURR DATE
M		ECAC CONTRACT AWARD FREQ ASSIGNMENT MODEL	2/80
V		FINAL HANDBOOK DELIVERED (ECAC INPUT FINAL FORM)	12/80
MC		ECAC CONTRACT COMPLETE	2/81
VC		FINAL HANDBOOK APPROVAL	5/81

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 : RESEARCH AND TECHNOLOGY :
 : TECHNICAL PROGRAM DOCUMENT :
 :

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 213-462-390 2. START DATE: 10/78 3. REVISION NUMBER: 0
 4. TITLE: POWER LINE CARRIER INTERFERENCE INVESTIGATION 5. MANAGER: CHARLES CRAM
 6. ORGANIZATION: ARD-452B 7. TELEPHONE NUMBER: 202-426-3994
 9. REQUIREMENT: 9550 AFS-100-78-161, LORAN-C PROGRAM
 10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 DCC/ITS
 TRANSPORTATION SYSTEMS CENTER (TSC)
 FAA TECH CENTER

AGREEMENT NUMBER:
 TAA DTEA01-81-Y-10546
 PPA # FA-192
 TPD 04-162,213-462-200

11. SPECIFIC OBJECTIVES:

THE OBJECTIVE OF THIS PROJECT IS TO DEVELOP A METHOD OF PREDICTING AND MEASURING INTERFERENCE FROM POWER LINE CARRIERS. INVESTIGATIONS WILL INCLUDE A VLF ANTENNA CALIBRATION SYSTEM, ADF RECEIVER SUSCEPTIBILITY TESTS, AND FLIGHT TEST BY WAFEC OVER PLC FACILITIES OF THE TENNESSEE VALLEY AUTHORITY. THESE INVESTIGATIONS WILL CONCENTRATE ON INTERFERENCE EFFECTS TO LORAN-C RECEIVERS. TSC WILL INVESTIGATE EFFECTS OF PLC SIGNALS ON LORAN-C RECEIVERS, WHILE ITS WILL PROVIDE A TEST PLAN FOR CALIBRATING AIRBORNE RECEIVER SYSTEMS AND MEASURING PLC FIELD STRENGTH IN THE AIRSPACE OVER POWER LINES.

12. MILESTONES:

TYPE	DESCRIPTION	CURR DATE
INDICATOR		
MC S	LORAN-C RECEIVE SYSTEM CALIBRATED	1/82
M	FINAL REPORT - PWR LINE CARRIER INTERFERENCE	7/82

 RESEARCH AND TECHNOLOGY
 TECHNICAL ISOCAP DOCUMENT

REPORT DATE: 1/22/82

1. PROJECT NUMBER: 210-465-010 2. START DATE: 10/79 3. DEVILION NUMBER: C
 4. TITLE: EVALUATION IN THE NATIONAL AIRSPACE SYSTEM 5. MANAGER: CHARLES J. ANDRUSCO
 6. CLASSIFICATION: AND-44 7. TECHNICAL NUMBER: DC2 426-1585
 8. REQUIREMENT: AGENCY ORDER 1020.1 "TRANSITION TO METRIC SYSTEM"
 9. PARTICIPATING GOVT/SOVSOURCE ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:

AGREEMENT NUMBER:

11. SPECIFIC OBJECTIVES:

CONDUCT IN-DEPTH ANALYSIS OF THE HUMAN FACTOR IMPLICATION OF METRICATION TO DETERMINE THE
 IMPACT/RISK INVOLVED IN METRIC CONVERSION.

12. MILESTONES:

TYPE INDICATOR	DESCRIPTION	CURR DATE
N	CONTRACT FOR HUMAN FACTOR STUDY	12/83
N	HUMAN FACTORS STUDY RPT COMPLETE	12/84
N	METRIC CONVERSION CONFIGURATION REPORT	6/86

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 216-150-010 2. START DATE: 7/76 3. REVISION NUMBER: 4
 4. TITLE: FRA NASA SIMULATION 5. MANAGER: JOHN F. REYANT
 6. ORGANIZATION: ASD-101 7. TELEPHONE NUMBER: 202-426-9332
 8. REQUIREMENT: SMS/NASA AMES LOA 6/21/74 & NAPEC/AMES LOA #256
 10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 NASA AMES
 FAATC/AMES

AGREEMENT NUMBER:
 LOA
 IAA-256

11. SPECIFIC OBJECTIVES:

PROVIDE OPERATIONAL SCENARIOS USING HIGH PERFORMANCE FLIGHT SIMULATORS AT NASA AMES RESEARCH CENTER,
 TO EVALUATE ADVANCED 4D ELECTRONICS SYSTEMS, FOR LIVE TESTS OF STOL AIRCRAFT AND IN DESIGN, TEST,
 AND EVALUATION OF FUEL OPTIMIZED FLIGHT PROCEDURES.

12. MILESTONES:

TYPE INDICATOR	DESCRIPTION	CURR DATE
"	DRAFT OF PROGRAM PLAN	6/81
"	DRAFT PROGRAM TEST PLAN	8/81
"	FINAL PROGRAM TEST PLAN	12/81
"	FIRST SIMULATION TEST RESULTS	7/82
"	SECOND SIMULATION TEST RESULTS	3/83
"	FINAL REPORT (FI)	10/83

 RESEARCH AND TECHNOLOGY

TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 21H-152-020 2. START DATE: 5/80 3. REVISION NUMBER: 0
 4. TITLE: STUDY OF SIMULTANEOUS TRIPLE ILS APPROACHES 5. MANAGER: JOHN P. BRYANT
 6. ORGANIZATION: ARD-101 7. TELEPHONE NUMBER: 202-426-9332
 9. REFERENCE: 9550 AAT 300-30

10. PARTICIPATING GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 FAA TECH CENTER
 AAT-320 (MYLES REYNOLDS)

AGREEMENT NUMBER:
 TDD 18-211
 NONE

11. SPECIFIC OBJECTIVES:

TO DETERMINE THE FEASIBILITY OF SIMULTANEOUS ILS (CAT I, II, AND III) APPROACHES TO 3 OR MORE PARALLEL RUNWAYS.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURR DATE
M	N	DYNAMIC SIMULATION COMPLETED	11/80
M	N	PRODUCT PLAN COMPLETED	11/80
M	N	REPORT ON CHI TRIPLE RUNWAY STUDY COMPLETED (ET)	10/81
M	N	9550 FINAL REPORT (AAT 300-30)	11/81

 1. NAME OF STUDY: HELICOPTER
 2. TECHNICAL PROGRAM DOCUMENT

EFFECT DATE: 1/22/92

1. PROJECT NUMBER: 11-154-010 2. START DATE: 10/70 3. REVISION NUMBER: 0
 4. TITLE: 127 A7V VTOL SUPPORT PROGRAM 5. NAME: N. FUJISAKI
 6. ORIGINATOR: 11-154-010 7. TELEPHONE NUMBER: 107-456-3633
 8. EQUIPMENT: HELICOPTER 127 A7V PLAN
 10. PARTICIPATING AGENCIES/ORGANIZATIONS AND AGREEMENT NUMBER:

ORGANIZATION NAME:
 107

AGREEMENT NUMBER:
 107 6/74

11. SPECIFIC PRELIMINARY:

ON CURRENT ON SHORT RANGE HELICOPTER OPERATIONS, PROVIDE OPERATIONAL SUPPORT IN NEAR-TERM NORTHEAST
 OPERATIONS HELICOPTER ACTIVITIES; CURRENT OIL RIG OPERATIONS; FUTURE DESIGN FOR 127 OIL RIG
 OPERATIONS; VTOL OPERATIONS CITY CENTER TO CITY CENTER; MAJOR AIRPORT TO CITY CENTER; AND ALL AREAS
 IN A LARGE METROPOLITAN AREA.

12. MILESTONES:

TYPE INDICATOR	DESCRIPTION	DATE
"	FINAL RPT FOR SIM OF INDEP HELI APPROACHES (EI)	2/81
"	CONTRACT SIGNED	3/81
"	SIMULATION COMPLETE	8/82
"C	RPT OF RECOMMENDED HELICOPTER ATC PROCEDURES (EI)	2/83

RESEARCH AND TECHNOLOGY
TECHNICAL PROGRAM DOCUMENT

PROJECT DATE: 1/22/82

1. PROJECT NUMBER: 211-154-001
2. COMPLETION DATE: 1/79
3. DIVISION NUMBER: 1
4. TITLE: ICRAN FLIGHT FOLLOWING (LOFF)
5. MANAGER: N. FUJISAKI
6. ORIGINATOR: ASD-001
7. TELEPHONE NUMBER: 202-406-3633
8. SUBJECT: HELICOPTER DEVELOPMENT PLAN
9. PARTICIPATING GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
FAC
SOUTHWEST REGION
CUSTOMS CENTER

AGREEMENT NUMBER:
PPA FA-084
ASW/AFD-81-243
NONE

11. SPECIFIC OBJECTIVES:

TO EVALUATE THE ICRAN FLIGHT FOLLOWING (LOFF) SYSTEM IN THE HOUSTON CENTER USING THE DEC 1134 COMPUTER AND A LOGGABLE GRAPHIC DISPLAY TO COVER HELICOPTER OPERATIONS IN THE GULF OF MEXICO.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURR DATE
		INTERIM REPORT COMPLETED (ET)	12/81
		ICRAN FLT FOLLOWING SYS DESCRIPTION (HELO IFR OPS)	6/82
		LOFF FINAL REPORT COMPLETED (ET)	9/82

RESEARCH AND TECHNOLOGY
TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 1/22/62

1. PROJECT NUMBER: DTP-156-02 2. START DATE: 6/60 3. REVISION NUMBER: 0
4. TITLE: RECOMMEND ATC SEPARATION CRITERIA FOR HELICOPTERS 5. MANAGER: A. FUJISAKI
6. ORGANIZATION: AWP-141 7. TELEPHONE NUMBER: 202-426-4633
8. REVIEWED BY:
9. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:
ORGANIZATION NAME: AGREEMENT NUMBER:
10. PRECISE OBJECTIVES:
11. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURR
	2	RECOMMEND ATC SEPARATION CRITERIA W/NFR TERIS	DATE
	2	WAKE VORTEX EFFECTS ON ATC SEPARATION CRIT COMP	6/83

 RESEARCH AND TECHNOLOGY
 TECHNICAL SUPPORT DOCUMENT

REPORT DATE: 1/22/82

1. PROJECT NUMBER: 21-154-000 2. START DATE: 6/80 3. REVISON NUMBER: 0
 4. TITLE: EVALUATE VFR ATC CONCEPTS FOR HELICOPTERS IN TCAS 5. MANAGER: M. FUJISAKI
 6. CLASSIFICATION: UNCLASSIFIED 7. TELEPHONE NUMBER: 202-426-2633
 8. SUMMARY:
 10. PARTICIPATING GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:
 11. SUMMARY OF RESULTS:
 12. REFERENCES:

INDICATOR	DESCRIPTION	CUSE	DATE
" Z	CONTRACT TO STUDY/CLASS VFR ATC CONCEPTS FOR TCAS		11/82
" Z	FIN REP: RECOMMENDING VFR TCA IMPVMTS/EAATC SIM		12/83
" Z	EAATC EVALUATION COMPLETE		12/84

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 1/22/82

1. PROJECT NUMBER: 215-154-06W 2. DATE: 0/00 3. REVISION NUMBER: 0
 4. TITLE: ATC CONCEPT FOR HELICOPTERS TO MULTIPLE AIR FIELDS 5. MANAGER: N. FUJISAKI
 6. ACRONYMS: AAI-121 7. TELEPHONE NUMBER: 002-426-3633
 9. REQUIREMENT:

10. PARTICIPATING GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:

AGREEMENT NUMBER:

11. SPECIFIC OBJECTIVES:

12. MILESTONES:

INDICATOR	TYPE	DESCRIPTION	CURRENT DATE
M	Z	UPDATED OFF-SHORE ATC CONCEPT DESCRIPTION	1/83
M	Z	DEVELOP SIMULATION PLAN FOR FAATC TEST	6/83
M	Z	FAA TECH CTR EVALUATION COMPLETE	6/84
M	Z	SIMULATION OF ATC FOR OFF-SHORE OPERATIONS	8/84
M	Z	FOLLOW-ON ATC SIMULATIONS	8/85
M	Z	FOLLOW-ON ATC SIMULATIONS	8/86
M	Z	FOLLOW-ON ATC SIMULATIONS	8/87

 RESEARCH AND TECHNOLOGY
 TECHNICAL SECURITY DOCUMENT

REPORT DATE: 1/22/82

1. ALLOCATION NUMBER: 010-158-000 2. START DATE: 0/00 3. EXPIRATION NUMBER: 0
4. TITLE: HELICOPTER SEPARATION AIDS AT HIGH DENSITY AIRPORTS 5. MANAGER: W. FUJISAKI
6. CLASSIFICATION: ACP-001 7. TECHNICAL NUMBER: 202-406-2633
8. REQUIREMENT:
10. ASSOCIATING GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:
- ORGANIZATION NAME: AGREEMENT NUMBER:
11. TECHNICAL OBJECTIVES:
12. MILESTONES:

TYPE			CURE
INDICATOR		DESCRIPTION	DATE
4	Z	CONTRACT TO DEVELOP EVALUATION PLAN	12/82
5	Z	EVALUATION PLAN COMPLETE	6/83
6	Z	EVALUATION COMPLETE	6/84
7	Z	FIN REP: HELICOPTER SEPARATION AIDS AT HIGH DENSITY AIRPORT	1/85

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: P33-151-020 2. START DATE: 10/78 3. REVISION NUMBER: 1
 4. TITLE: TRACON SUPERVISOR DESK/CONSOLE FOR TRACONS 5. MANAGER: HOLLY BARLAGL
 6. SPECIALIZATION: 1-100 7. TELEPHONE NUMBER: 202-426-1336
 8. DECLASSIFIED: OADR AAF-110-79-003

10. PARTICIPATING GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 FAATC

AGREEMENT NUMBER:
 TPR-14-292

11. SPECIFIC OBJECTIVES:

TO STANDARDIZE THE SUPERVISORY POSITION ENVIRONMENT IN TRACONS TO PROVIDE A FUNCTIONALLY COORDINATED POSITION FROM WHICH THE SUPERVISOR CAN MONITOR AND CONTROL THE NUMEROUS OPERATIONAL AND ENVIRONMENTAL FUNCTIONS ASSIGNED TO THE POSITION IN A WORK SPACE CONSISTENT WITH STANDARD TRACON LAYOUTS.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURR	DATE
*	N	COMPLETE DESIGN FOR AAT/AAF/ARD REVIEW		1/81
*	N	MOCK-UP DESIGNS ACCEPTED		3/81
*		9550 FINAL REPORT (AAF 510-79-003) (FI)		12/81

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 219-152-010 2. START DATE: 10/79 3. REVISION NUMBER: 3
 4. TITLE: EVALUATION OF COLOR DISPLAYS FOR ATC 5. MANAGER: LAUREN DOUGLASS
 6. ORGANIZATION: AFM-110 7. TELEPHONE NUMBER: 202-426-0960
 8. REQUIREMENT: 9550 - AAF 610-78-006
 10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 AAF/GRDS/FAATC/AAT/WASH ARTCC
 CRYTHEON CORPORATION

AGREEMENT NUMBER:

11. SPECIFIC OBJECTIVES:

PERFORM A TECHNICAL AND OPERATIONAL EVALUATION OF THE PLANNED VIEW DISPLAY (PVD) AND DISPLAY CONTROL
 VECTOR GENERATOR (DCVG) COLOR MODIFICATION. STUDY AND EVALUATE OTHER PROMISING COLOR DISPLAY
 TECHNIQUES LEADING TO A SPECIFICATION.

12. MILESTONES:

TYPE	DESCRIPTION	CURR
INDICATOR		DATE
4	OPS/EVAL COMPLETED	10/81
1C	9550 FINAL REPORT (AAF 610-78-006) (ET)	3/82

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/09/82

1. PROJECT NUMBER: 219-454-010 2. START DATE: 10/79 3. REVISION NUMBER: 0
 4. TITLE: DETECT/DEFINITION OF FUTURE ATC SYSTEMS AND ASSOCIATED INTERFACES 5. MANAGER: JAMES H. CHILDESS
 6. ORGANIZATION: ARD-441 7. TELEPHONE NUMBER: 202-426-8617
 8. REQUIREMENT: FUNC INTER TO INSURE CRPS FCMS ARE ACCOM ON TIME/COMPATIBLE & COORD
 10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:

AGREEMENT NUMBER:

11. SPECIFIC OBJECTIVES:

TO ASSURE PROPER INTERFACES AMONG EQUIP, SYSTEMS, AND PROGRAMS ARE BEING ACCOMPLISHED. TO ASSURE
 COMPATIBILITY OF INDIVIDUAL EFFORTS PROPER SCHEDULE INTEGRATION. UPDATE PREVIOUS DESCRIPTION OF ATC
 SYSTEMS FOR NEAR-TERM AND LONG-TERM SCENARIOS.

12. MILESTONES:

TYPE			DESCRIPTION	CURR DATE
INDICATOR				
MC S G			PUBLISH BLUE BOOK (INTEGRATION ISSUES)	5/80
M			UPDATE BLUE BOOK	5/81
M			UPDATE BLUE BOOK (INTEGRATION ISSUES)	5/82
M			UPDATE BLUE BOOK (INTEGRATION ISSUES)	6/82
M			UPDATE SYSTEM DESCRIPTION	6/83
M			UPDATE BLUE BOOK (INTEGRATION ISSUES)	6/84
M			UPDATE SYSTEM DESCRIPTION	6/85
M			UPDATE BLUE BOOK (INTEGRATION ISSUES)	6/85
M		Z	UPDATE BLUE BOOK (INTEGRATION ISSUES)	6/86
M		Z	UPDATE SYSTEM DESCRIPTION	6/87
M		Z	UPDATE BLUE BOOK (INTEGRATION ISSUES)	6/87

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 231-130-010 2. START DATE: 10/79 3. REVISION NUMBER: 3
 4. TITLE: COMPUTER DEVELOPMENT SUPPORT (ASD-140) 5. MANAGER: PAUL RICH
 6. SACANIZATION: ASD-131 7. TELEPHONE NUMBER: 202-426-9327
 9. REQUIREMENT: SRG ITS OF 9/78
 10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 ASD-140
 ASD-140

AGREEMENT NUMBER:
 MGMT PLAN

11. SPECIFIC OBJECTIVES:

IDENTIFY, COLLECT, ORGANIZE AND CATALOGUE ATC AUTOMATION SYSTEM DOCUMENTATION. ANALYZE DOCUMENTATION AND PRODUCE SYSTEM-LEVEL REQUIREMENTS SPECIFICATIONS FOR MAJOR FUNCTIONAL AREAS AND SYSTEM-LEVEL DATA DESCRIPTIONS FOR EXTERNAL AND INTERNAL INTERFACES. ENSURE THAT APPLICABLE TERMINAL ATC REQUIREMENTS ARE INCLUDED IN SYSTEM-LEVEL SPECIFICATIONS. PERFORM STATISTICAL ANALYSES OF AUTOMATION SYSTEM UTILIZATION BASED ON FIELD MEASUREMENT DATA.

12. MILESTONES:

TYPE INDICATOR	DESCRIPTION	CORR DATE
✓	COMPL 9020 UTILIZATION DATA COLLECTION FOR A3D2.9	9/80
✓	COMPL FINAL AUTO SYS DESCRIPTION	10/80
NC S	COMPL FINAL 9020 UTIL RPT (EI)	6/81
✓	COMPL FINAL DATA DESCRIPTION	11/81
✓	COMPL REVIEW OF FINAL DRAFT SPEC	11/81
✓	COMPL DRAFT ENGINEERING MANAGEMENT PLAN	12/81
✓	COMPL DRAFT CONTRACT MONITOR PLAN	3/82
✓	UPDATE SPEC FOR RELEASE	4/82
✓	COMPL CONTRACT MONITOR PLAN	7/82
✓	COMPL TECHNICAL EVAL OF PROPOSALS	12/82
✓	RESOLVE NEGOTIATION COMMENTS ON SPEC	3/83

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 231-131-040 2. START DATE: 10/79 3. REVISION NUMBER: 0
 4. TITLE: PROGRAM PLANNING AND SYSTEM ENGINEERING (MITRE) 5. MANAGER: W. WILSON
 6. ORGANIZATION: ARD-132 7. TELEPHONE NUMBER: 202-426-9324
 8. REQUIREMENT: SRC LTR OF 9/78
 10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:
 ORGANIZATION NAME: AGREEMENT NUMBER:
 MITRE FY-82 TCS(E. CARRIGAN)

11. SPECIFIC OBJECTIVES:

ANALYZE THE IMPACT OF PLANNED AUTOMATION ENHANCEMENTS ON THE CURRENT ATC SYSTEM. DEFINE INTERFACES OF TERMINAL AND INROUTE AUTOMATION SYSTEMS. PROVIDE INPUTS TO COMPLETE REPLACEMENT REQUIREMENTS SPECIFICATION AND EVALUATION PLAN.

12. MILESTONES:

TYPE		CONF
INDICATOR	DESCRIPTION	DATE
M	9020 OFFLOADING CONCEPT ANALYSIS COMPLETE	10/80
M	STRESS CONDITION ANALYSIS COMPLETE	10/80
M	COMPLETE SURVEY OF RAM MODELS	6/81
M	COMPLETE PERFORMANCE DATA ANALYSIS	8/81
M	FINAL INTERFACE SPECIFICATION COMPLETE	8/81
M	COMPUTER REPLACEMENT SPEC REVIEW COMPLETE (EI)	11/81
M	RESOLVE COORDINATION COMMENTS ON SPEC	12/81
M	COMPLETE RAM EVALUATION MODEL	5/82
M	RESOLVE NEGOTIATION COMMENTS ON SPEC	3/83

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 231-132-010 2. START DATE: 10/81 3. REVISION NUMBER: 1
 4. TITLE: FAA TECHNICAL CENTER SUPPORT 5. MANAGER: J. WOJCIECH
 6. ORGANIZATION: APP-131 7. TELEPHONE NUMBER: 202-426-3290
 9. REQUIREMENT: SRG LTR OF 9/78
 10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 ACT-702

AGREEMENT NUMBER:
 TPD

11. SPECIFIC OBJECTIVES:

TO PROVIDE TECHNICAL SUPPORT FOR THE REPLACEMENT OF EXISTING ATC HARDWARE AND SOFTWARE SYSTEMS<
 PARTICULARLY IN THE AREAS OF SUPPORT FACILITIES AND TEST AND EVALUATION>

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURR DATE
P	N	COMPLETE REVIEW OF FINAL DRAFT SPEC	11/81
M	N	RESOLVE COORDINATION COMMENTS ON SPEC	2/82
P	N	COMPLETE INSTL OF TRACEABILITY PROGRAM	3/82
M	N	COMPL FINAL TCE MANAGEMENT PLAN	6/82
M	N	COMPL PGM STATEMENT LANG MODEL OF FINAL CRP SPEC	8/82
M	N	COMPL TECHNICAL EVALUATION OF PROPOSALS	12/82
M	N	RESOLVE NEGOTIATION COMMENTS ON SPECIFICATION	3/83

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 231-132-020 2. START DATE: 6/79 3. REVISION NUMBER: 3
 4. TITLE: VALIDATION AND VERIFICATION (VEV) 5. MANAGER: A. WONG
 6. ORGANIZATION: ARD-131 7. TELEPHONE NUMBER: 202-426-9325
 9. REQUIREMENT: SEC LETTER OF 9/21/78
 10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
 NONE

AGREEMENT NUMBER:
 NONE

11. SPECIFIC OBJECTIVES:

PERFORM INDEPENDENT ANALYSIS OF REQUIREMENTS DESCRIPTIONS AND PREPARE A COMPLETE AND CONSISTENT SYSTEM SPECIFICATION. ADDITIONALLY, PREPARE TECHNICAL REPORTS RECOMMENDING APPLICATION OF DESIGN, CONSTRUCTION, AND QUALITY STANDARDS.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURN
			DATE
		COMPL PROD SYS LANG MODEL OF DRAFT REPL SYS SPEC	2/81
		COMPL VERIFICATION OF DRAFT REPL SYS INTERP SPEC	3/81
		COMPL TRACEABILITY PROGRAM	1/82
	S	COMPL PROD OF FINAL REPL SYSTEM SPEC (VEV) (E/I)	5/82
	Z	COMPL FINAL DATA MANAGEMENT PLAN	6/82
	N	COMPL FINAL CONFIGURATION MANAGEMENT PLAN	6/82
	PC	COMPL FINAL VEV PROGRAM PLAN	9/82

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/06/82

1. PROJECT NUMBER: 231-132-03C 2. START DATE: 10/79 3. REVISION NUMBER: 2
 4. TITLE: SYSTEM ENGINEERING AND TECHNICAL ASSISTANCE (SETA) 5. MANAGER: A. SIMOLUNAS
 6. ORGANIZATION: ARD-132 7. TELEPHONE NUMBER: 202-426-9324
 9. REQUIREMENT: SRC LETTER OF 9/21/78

10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:

AGREEMENT NUMBER:

11. SPECIFIC OBJECTIVES:

THIS EFFORT WILL COVER: (1) REQUIREMENTS SPECIFICATION AND ALLOCATION (2) COST, SCHEDULE AND RISK ANALYSIS, (3) PERFORMANCE ANALYSIS, SIMULATIONS AND MODELING, (4) FEASIBILITY AND TRADE-OFF STUDIES (5) DEVELOPMENT OF TECHNICAL MANAGEMENT STANDARDS AND PRACTICES WHICH ARE REQUIRED TO DESIGN THE SYSTEM AND FOR A/C COMPUTER REPLACEMENT.

12. EXHIBITS:

EXHIBIT	DESCRIPTION	DATE
1	SETA CONTRACT TASK ORDER	8/81
2	SURVEY OF TECHNICAL EVALUATION TOOLS	11/81
3	COMPL REVIEW OF FINAL DRAFT SETA	11/81
4	COMPL PROPOSAL EVALUATION PLAN	11/81
5	RPT - DATA MANAGEMENT TECHNOLOGY PLAN	11/81
6	COMPL SECTOR SWING TECHNOLOGY ASSISTMENT	2/82
7	COMPL EVALUATION PLAN	5/82

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/05/82

1. PROJECT NUMBER: 231-132-040 2. START DATE: 7/81 3. REVISION NUMBER: 1
 4. TITLE: SECTOR SUITE DEVELOPMENT 5. MANAGER: E CORINI/M BATEMAN
 6. ORGANIZATION: APD-132 7. TELEPHONE NUMBER: 202-426-9324
 9. REQUIREMENT: SSG LTR OF 9/78
 10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:

AGREEMENT NUMBER:

11. SPECIFIC OBJECTIVES:

TO ANALYZE ATOS WORK STATION REQUIREMENTS AND PRODUCE SPECIFICATIONS FOR A NEW SECTOR CONTROL SUITE

12. MILESTONES:

TYPE INDICATOR	DESCRIPTION	CURR DATE
M	PVD MODIFICATION DESIGN EVALUATION	7/81
M	PVD INTERFACE MODIFICATION EVALUATED	9/81
M	FINAL SECTOR SUITE DEVELOPMENT PLAN	2/82
M	INTEGRATE ETABS, TIES, AFRA REQUIREMENTS	4/82
M	COMPL PRELIMINARY SECTOR SUITE SPEC	5/82
M	COMPL FINAL SECTOR SUITE SPEC (EY)	5/83

STATE OF CALIFORNIA
TECHNICAL PROCESS DOCUMENT

REPORT DATE: 1/22/82

1. PROJECT NUMBER: DPA-100-1
2. DRAFT DATE: 4/81
3. EVALUATION NUMBER: 1
4. TITLE: EN ROUTE CONCEPT
5. MANAGER: W. G. PERKINS
6. ORIGINATOR: ASD-13
7. TELEPHONE NUMBER: 702-404-6324
8. DATES: 10/80 TO 12/81
9. PARTICIPATING AGT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:
NONE

AGREEMENT NUMBER:
NONE

10. SPECIFIC OBJECTIVES:

TO DEFINE THE REQUIREMENT FOR THE EN ROUTE ATC AUTOMATION SYSTEM BY MEANS OF DEVELOPMENT CONTRACTORS.

11. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURR DATE
M		COMPLETE 1ST DRAFT SPECIFICATION	12/80
M		COMPLETE DRAFT EVALUATION PLAN FORMAT	12/80
M		COMPLETE 1ST DRAFT STATEMENT OF WORK	3/81
M		COMPLETE DRAFT EVALUATION PLAN	3/81
M		COMPLETE 2ND DRAFT SPECIFICATION	3/81
M		PURCHASE REQUEST TO ARD-1	7/81
M		COMPLETE COORDINATION DRAFT SPEC & SOW	8/81
MC S	G	COMPUTER REPL COORDINATED SPECS AND RFP TO ALG	12/81
M		EVALUATION PROCEDURES TO SOURCE EVALUATION BOARD	1/82
M		TSARC I	2/82
M		RFP ISSUED FOR EN ROUTE SYSTEM	2/82
MC S	G	AWARD CONTRACTS: ALTERNATIVE CONCEPTS (COMP REPL)	12/82
M		RECEIVE CONCEPT REPORTS	9/83
M		COMPLETE CONCEPT EVALUATION	12/83

RESEARCH AND TECHNOLOGY
TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 1/22/82

1. PROJECT NUMBER: 241-173-02 2. START DATE: 1/84 3. REVISION NUMBER: 0
4. TITLE: EN ROUTE DESIGN 5. MANAGER: W.E. PERIF
6. ORGANIZATION: ASD-140 7. TELEPHONE NUMBER: 202-426-9324
8. ABSTRACT:
10. PARTICIPATING GOVT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:
- ORGANIZATION NAME: AGREEMENT NUMBER:
11. SPECIFIC OBJECTIVES:
12. MILESTONES:

TYPE INDICATOR	DESCRIPTION	CURR DATE
M	TSARC II	1/84
M	AWARD CONTRACTS FOR EN ROUTE DESIGN	3/84
M	RECEIVE DESIGN PHASE PRODUCTS FOR EN ROUTE DESIGN	12/85
M	COMPL DESIGN EVALUATION, EN-ROUTE SYSTEM	3/86

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/06/82

1. REPORT NUMBER: 292-130-017 2. START DATE: 10/81 3. REVISION NUMBER: 1
 4. TITLE: DEVELOPMENT SUPPORT (SD-140) 5. MANAGER: W. PATMAN
 6. ORIGINATOR: ASD-137 7. INTECHOML NUMBER: 202-406-0324
 8. REQUIREMENT: CNO IFF OF 4/76
 10. PARTICIPATING GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:
 ORGANIZATION NAME: AGREEMENT NUMBER:
 API-140 (NCSBAG4) SD-140
 11. SPECIAL OBJECTIVES:
 12. MILESTONES:

TYPE	DESCRIPTION	CUFR
INDICATOR	COMPL FINAL TERMINAL SPEC UPDATES	DATE
	COMPL INTEGRATION OF TERM FUNCTIONS INTO SYS SPEC	2/82
		4/82

 RESEARCH AND TECHNOLOGY
 TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 3/08/82

1. PROJECT NUMBER: 232-132-03 2. START DATE: 10/81 3. REVISION NUMBER: 1
 4. TITLE: TERMINAL SYSTEM ENGINEERING 5. MANAGER: M. BATEMAN
 6. ORGANIZATION: ASD-132 7. TELEPHONE NUMBER: 202-426-9324

9. REQUIREMENT: CAG LT- OF 9/78

10. PARTICIPATING GOVT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:

AGREEMENT NUMBER:

11. SPECIFIC OBJECTIVES:

TO ANALYZE AUTOMATION ISSUES ARISING FROM CONSOLIDATION OF TERMINAL ATC FACILITIES

12. MILESTONES:

TYPE INDICATOR	DESCRIPTION	CUPR DATE
"	COMPLETE PROJECT PLAN - TERMINAL SYSTEM	10/81
"	UPDATE COMPUTER MODERNIZATION STUDY SPECIFICATION	8/82
"	COMPLETE REQUIREMENTS ANALYSIS - TERMINAL SYSTEM	4/82
"	COMPLETE SITE SPECIFIC EVOLUTION SCENARIO	9/82
"	COMPL TECH & COST ANALYSIS OF CONSOLIDATED RQNTS	10/82

 RESEARCH AND TECHNOLOGY
 TECHNICAL RECORD DOCUMENT

REPORT DATE: 1/22/82

1. PROJECT NUMBER: 232-133-010 2. START DATE: 12/83 3. REVISION NUMBER: 0
 4. TITLE: TERMINAL CONSOLIDATION CONCEPTS 5. MANAGER: M.E. PERIF
 6. CLASSIFICATION: UNCLASSIFIED 7. TELEPHONE NUMBER: 202-426-9324
 9. REQUIREMENT:
 10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:
 ORGANIZATION NAME: AGREEMENT NUMBER:
 11. SPECIFIC OBJECTIVES:
 12. MILESTONES:

TYPE INDICATOR	DESCRIPTION	CURR DATE
B	COMPL EVAL OF TERM/EN RTE COMMONALITY CONCEPTS	12/83

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